EXCEPTIONAL STUDENTS AND SEXUALITY EDUCATION: TEACHERS' BELIEFS, PROFESSIONAL PREPARATION, AND PRACTICES

By

ELISSA M. HOWARD

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EXCEPTIONAL STUDENTS AND SEXUALITY EDUCATION:
TEACHERS' BELIEFS, PROFESSIONAL PREPARATION, AND PRACTICES

By

Elissa M. Howard

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This study examined the beliefs of Florida special education teachers about teaching sexuality education to educable mentally handicapped, special education students. The study determined (a) Florida special education teachers' beliefs about the need for providing sexuality education to special education students classified as educable mentally handicapped, (b) the range of sexuality topics they teach, (c) their professional preparation in sexuality education, (d) when they believe sexuality education should be taught to special education students, (e) whether their beliefs about teaching sexuality education predict the sexuality topics included in instruction, and (f) whether their professional preparation affects their beliefs about teaching sexuality. Using a scan-tron self-report study, half of all 988 Florida special education teachers who teach educable mentally handicapped students were selected randomly to complete the instrument. Of the 494 teachers selected, 206 completed and returned the instrument yielding a 42% response rate. The researcher developed the instrument following the 36 sexuality content areas falling under the six key concepts provided by Sex Information and Education Council of the U. S (SIECUS). The instrument was reviewed by an expert

panel, and pilot tested with Florida special education teachers teaching educable mentally handicapped students.

Results found that Florida special education teachers believe many of the sexuality topics identified by SIECUS should be taught to educable mentally handicapped students. However, most participants reported delivering only a limited amount of sexuality education topics to their students. Teachers rated their professional preparation to teach sexuality education as below average, and only 7.1% of participants reported having had any professional preparation that specifically included teaching sexuality education to special education students. Most participants believe sexuality education should be offered to both middle school and high school students classified as educable mentally handicapped students, and over half believe it should also be offered to these students in elementary school.

Beliefs of special education teachers toward the need for providing sexuality education in five of the six sexuality key concepts identified by SIECUS were shown to be significant in predicting the actual topics taught. However, when examining the effect professional preparation in sexuality education had on teachers' beliefs toward the need for providing sexuality education, no significant findings were discovered. Further research should address the extent and scope of professional preparation in sexuality education.

CHAPTER 1
INTRODUCTION

Background of the Problem

Although the issue of sexuality for the mentally disabled has been controversial for years, social changes during the past three decades improved attitudes toward providing education about sexuality of people with a mental disability (Whitehouse & McCabe, 1997). Persons with mental disabilities form their views regarding sexuality through their experiences and interactions with peers and caregivers (Lunsky & Konstantareas, 1998). Therefore, it is important to study the people who work closely with the disabled because of their impact on the conception of sexuality.

Very little research has been conducted in this area (Duh, 1999). The limited research that has been published suggests that adolescents with mental disabilities hold conservative and negative attitudes toward sexuality (Lunsky & Konstantareas, 1998). Their engagement in healthy sexual relationships is seldom discussed nor are they taught how to protect themselves from sexually-related harmful behavior (Betz, 1994). Compounding this problem, parents may withhold information from their mentally disabled children based on their fear for their children's vulnerability to sexual abuse.

When sexuality education is offered, much of what students are taught is presented from a biological perspective rather than in the context of social issues (Brown & Farm, 1994). Unfortunately, parents and teachers often are not prepared to handle sexuality issues with this population or to teach them essential components in sexuality education (Foley & Dudzinski, 1995). Responsible caregivers and educators often possess limited

education themselves or report a low comfort level with addressing the topic. Fortunately, society now recognizes the need for sexuality education and trained educators to teach this topic to mentally disabled students (Whitehouse & McCabe, 1997). Whitehorse and McCabe called for more research on this topic.

Moreover, few studies assessed the effectiveness of sexuality education for this population. Lindsay, Bellshaw, Culross, Staines, and Michie (1992) demonstrated that students' knowledge increased following a 9-month knowledge-based sexuality curriculum for mentally disabled students. Three months following the curriculum, students maintained their knowledge of parts of the body, masturbation, puberty, intercourse, pregnancy and childbirth, birth control, and sexually transmitted diseases. Whitehorse and McCabe (1997) suggested a need for more research.

Problem of the Study

This study examined (a) Florida special education teachers' beliefs about the need for providing sexuality education to special education students classified as educable mentally handicapped, (b) the range of sexuality topics they teach, (c) their professional preparation in sexuality education, (d) when they believe sexuality education should be taught to special education students, (e) whether their beliefs about the need for teaching sexuality education predict the sexuality topics included in instruction, and (f) whether their professional preparation affects their beliefs about the need for teaching sexuality.

Purpose of the Study

This study established a valid and reliable instrument and provided baseline data on whether and how Florida special education teachers perceive the importance for providing sexuality education to educable mentally handicapped students. In addition, this study examined special education teachers' beliefs about providing sexuality

education and determined sexuality education topics actually taught by special education teachers. Findings also documented the nature and extent of professional preparation received by special education teachers in the area of human sexuality. Results from this study may be helpful in offering recommendations to improve the sexuality education curriculum provided for educable mentally handicapped students and by offering recommendations to improve the professional preparation of special education teachers to provide sexuality education for educable mentally handicapped students.

Rationale

Sexuality includes a full spectrum of feelings and plays an essential role in one's personality. It recognizes that one's own sexuality is a gateway toward intimacy including feelings of comfort, touching, security, support, love, and affection. Unfortunately, individuals with disabilities have more difficulty in achieving intimacy than the general population (Duh, 1999).

As children grow into adolescence, social situations and concerns about sexuality become unavoidable. Many individuals experience rejection or sexual abuse by peers or caregivers during this time (Crossmaker, 1991). Society's reluctance to address sexual issues, especially with the intellectually disabled, is a recognized problem (Ousley & Mesibov, 1991). Therefore it is important that teachers and parents help prepare members of this population to protect themselves and develop healthy relationships. There is a need for education programs that address sexuality for parents, teachers, and students (Whitehorse & McCabe, 1997).

Few studies explored sexuality education of mentally handicapped children and the attitudes of teachers toward this subject (Lunsky & Konstantareas, 1998). Given the significant impact these individuals have on children with intellectual disabilities, the focus of this study was to determine the teachers' beliefs, preparation, and practice as they related to sexuality education (Katoda, 1993).

Research Questions

The research questions for the study are the following:

1. What do Florida special education teachers believe concerning the need for providing sexuality education to educable mentally handicapped students?

2. Which sexuality education topics do Florida special education instructors teach to educable mentally handicapped students?

3. What professional preparation in sexuality education did Florida special education teachers receive?

4. When do Florida special education teachers believe sexuality education should be taught to educable mentally handicapped students?

5. Do the beliefs Florida special education teachers hold about teaching sexuality education predict the sexuality education topics they teach?

6. How does professional preparation in sexuality education affect the beliefs of Florida special education teachers about teaching sexuality.

Delimitations of the Study

The following delimitations or constraints should be considered when interpreting the study findings:

1. Participants included special education teachers in the state of Florida that are identified as such in the Florida Department of Education database.

2. Data for the study were collected using a self-report, mailed survey.

3. Participants used scan-tron sheets to answer the questions on the instrument.

4. Survey content focused exclusively on the potentially sensitive topic of sexuality education.

5. Data were collected during spring 2000.

6. Question 5 on the instrument, "Sexual Identity and Orientation," is the only variable of the 36 content areas that contains a description "including homosexuality."

Limitations of the Study

The following limitations should be considered when interpreting the results of the study:

1. The Florida Department of Education database of special education teachers in the state of Florida may not include all individuals providing such education in Florida.

2. A self-report, mailed survey may not fully capture the beliefs and practices of the participants.

3. Participants may have made errors when filling out the scan-tron sheets.

4. Participants may not fully disclose their beliefs and practices due to the sensitive nature of the topic.

5. Data collected during Spring 2000 may differ from data collected at other times in the school year.

6. Participants may be influenced in their response to question 5 since it contains the description, "including homosexuality."

Assumptions of the Study

The following assumptions will be made throughout the course of this study:

1. The Florida Department of Education database of special education teachers in the state of Florida was adequate for the purpose of this study.

2. The survey instrument adequately captured beliefs and practices for the study.

3. The participants accurately completed the scan-tron sheets.

4. The professional teachers participating in the study were candid in their responses on the survey instrument.

5. Data collected during spring 2000 did not differ substantially from data potentially obtained at other time in the school year.

6. Participants will not be biased in their response to question 5 since it includes the description "including homosexuality" to fully describe the scope of the topic.

Conceptual Definitions

Comprehensive sexuality education addressees the biological, sociocultural, psychological, and spiritual dimensions of sexuality from the cognitive (facts and information), affective (feelings, values and attitudes), and behavioral (skills to communicate effectively and make responsible decisions) domain (Sex Information and Education Council of the United States [SIECUS], 1990).

The Florida Department of Education classifies exceptional students with a mental handicap as educable, trainable, or profound. Educable mentally handicapped students are those with the least amount of mental impairment (Florida Department of Education, 2000).

As defined by the Florida Department of Education (2000), exceptional students are children in Florida who have special learning needs. Other words to describe the exceptional child may include disabled, handicapped, or impaired.

The Florida Department of Education (DOE) is an organization committed to the delivery of quality services to the state's education system. The mission of Florida's public education system is to provide the opportunity for all Floridians to attain the knowledge and skills necessary for lifelong learning and to become self-sufficient, contributing citizens of society (Florida Department of Education, 2000).

A task force of leading health, education, and sexuality professionals in 1990 developed the Guidelines for Comprehensive Sexuality Education (Guidelines). They formulated the broad concepts and subconcepts necessary for comprehensive sexuality education. Each component includes life behaviors and developmental messages as well. The Guidelines provide an organizational framework for human sexuality and family living within four developmental levels, grades kindergarten through 12. There are six main concepts--human development, relationships, personal skills, sexual behavior, sexual health, and society and culture--encompassing 36 topics (National Guidelines Task Force, 1996).

An Individualized Educational Plan (IEP) is a written plan for the special education of a student with a disability. This plan will tell the parents, the teachers, and other school staff what special programs and related services will be provided to the child. A child cannot start any exceptional student education program until the IEP is done and parents give consent for services to begin (Florida Department of Special Education, 2000).

Intellectually disabled describes an individual facing slight mental retardation (Whitehorse & McCabe, 1997).

Puberty is a period of rapid, physical change in early adolescence during which the reproductive organs mature (Crooks & Baur, 1999).

Sexual abuse is unwanted or forced sexual contact such as rape or forced oral sex; unwanted touching or unwanted displays of sexual parts; threats of harm or coercion in connection with sexual activity (The Roeher Institute, 1993). For people with disabilities sexual abuse has also been identified as including the denial of sexuality, denial of sexual information/education, forced abortion, or sterilization (Health and Welfare Canada, 1993).

SIECUS defines sexuality as encompassing the sexual knowledge, beliefs, attitudes, values and behaviors of individuals. It deals with the anatomy, physiology, and bio-chemistry of the sexual response system; with roles, identity and personality; and with individual thoughts, feelings, behaviors and relationships. It addresses ethical, spiritual, and moral concerns, and group and cultural variations (SIECUS, 1990).

Sexuality Information and Education Council of the United States (SIECUS) is a professional organization that promotes and affirms the concept of human sexuality as a natural and healthy part of living. They develop, collect, and disseminate information, promote comprehensive sexuality education, and advocate the right of individuals to make responsible sexual choices (SIECUS, 1990).

Sexuality education is a lifelong process of acquiring information and forming attitudes, beliefs, and values about identity, relationships, and intimacy. It encompasses sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image, and gender roles (National Guidelines Task Force, 1996).

Summary

This chapter introduced the problem of the study, the purpose, the rationale, and the research questions. It presented the delimitations, limitations, and assumptions of the study, along with conceptual definitions. Chapter 2 provides a review of the related literature. Chapter 3 describes the methods and materials used to conduct this study. In Chapter 4, results of the research questions are reported. Discussion, conclusions and implications are presented in Chapter 5.

CHAPTER 2
REVIEW OF THE LITERATURE

Purpose of the Study

This study examined (a) Florida special education teachers' beliefs about the need for providing sexuality education to special education students classified as educable mentally handicapped, (b) the range of sexuality topics they teach, (c) their professional preparation in sexuality education, (d) when they believe sexuality education should be taught to special education students, (e) whether their beliefs about the need for teaching sexuality education predict the sexuality topics included in instruction, and (f) whether their professional preparation affects their beliefs about the need for teaching sexuality. The purpose of this chapter is to review the related literature in the areas of (a) beliefs about the sexuality of the intellectually disabled, (b) need for sexuality education for intellectually disabled children, (c) current sexuality education that exists for intellectually disabled students, (d) special education teachers and sexuality education, and (e) special education in the state of Florida.

Beliefs Toward the Sexuality of the Intellectually Disabled

A Historical Review of Society's Beliefs

The sexuality of intellectually disabled individuals has been a controversial topic for many years. Until the late 1960s, their sexuality was feared and misunderstood (Craft & Craft, 1981; Kempton & Kahn, 1991; Brown & Farm, 1994). Many were punished for

engaging in sexual behavior, isolated in large institutions, and randomly sterilized or segregated by sex to prevent them from reproducing. Although they were thought to be educable, the intellectually disabled were still considered to be the result and cause of sexual immorality in the early nineteenth century (Kempton & Kahn, 1991).

Prior to the 1900s, most children with intellectual disabilities were locked away for life in asylums for the blind or insane with no access to education (Whitehorse & McCabe, 1997). Although a group of physicians founded the first professional association in 1876 to train these children to eventually return to their homes and communities, negative attitudes and disregard for the sexual needs of people with intellectual disabilities did not change (Kempton & Kahn, 1991). They continued to be seen as inevitably criminal and sexually promiscuous.

In the early 1900s, laws permitting involuntary sterilization resulted in approximately 60,000 individuals sterilized without their consent between 1907 and 1957 (Paul, 1974). Of these 60,000 sterilized, less than one-fifth had ever been sexually active. Involuntary sterilization continued until 1978 when state and federal hearings helped establish federal guidelines to limit sterilization of mentally handicapped people (Kempton & Kahn, 1991). However, research studies by 1925 showed that many intellectually disabled persons were infertile (Davies, 1959).

During the 1940's, public attitudes toward sterilization shifted as a result of World War II horrors of Nazi sterilization programs and a growing knowledge that intellectually disabled children were usually born to healthy parents (Kempton & Kahn, 1991). However, little progress continued in treatment or education of the sexuality of individuals with intellectual disabilities. They were punished for any attempt at heterosexual communication, ridiculed or punished for masturbation, and considered to

be sexless individuals. During this time, many girls were "put away" upon reaching puberty to protect them from pregnancy (Kempton & Kahn, 1991).

During the 1950s, progress toward a more positive attitude of the sexuality of the intellectually disabled was made. The Association for Retarded Children (ARC) was formed by groups of parents. This organization had success in lobbying for research funding in the area of mental handicaps and the development of special education classes for disabled students (Davies, 1959). Several institutions began allowing minimal coeducational socializing, although this was very limited (Kempton & Kahn, 1991).

Attitudes continued to become more positive during the 1960s and 1970s. During the civil rights activism, advocates for intellectually disabled individuals were prominent. As a result, new research along with professional training and community-based service programs were initiated (Kempton & Kahn, 1991). Ways to discuss sexuality of individuals with intellectual disability were being developed by research and education professionals for the individuals, their parents, and their teachers (Kempton & Kahn, 1991). In 1971, the "Declaration of Rights of the Mentally Retarded" was passed to guarantee the sexual rights of people with intellectual disability (Whitehouse & McCabe, 1997). Several years later, Nirje (1976) developed the philosophy of normalization to support sexuality of this population. This philosophy argued that the intellectually disabled should follow the normal pattern of daily life, similar to the lives of community members without disability. The idea of deinstitutionalisation and integration became evident as a result of this philosophy, with the intellectually disabled becoming more visible in the community and school system (Whitehouse & McCabe, 1997).

Deinstitutionalization of individuals with intellectual disabilities during the 1970s created more acceptance and opportunity, as well as concern (Kempton & Kahn, 1991).

Many were moved from secluded institutions to group homes and independent living facilities. With the sexual revolution and sexual rights movement evident in the 1970s, many felt those with intellectual disabilities who experienced this radical transition did not have the necessary life skills and education to protect themselves. It became evident that training in sex education, social skills, and protection from abuse was imperative (Kempton & Kahn, 1991).

Several milestones were reached during the 1970s in recognizing the current needs of many intellectually disabled persons now living in society. Winifred Kempton, experienced as a psychologist, social worker, and educator in the areas of mental retardation, family planning, and sex education, led a group of pioneers dedicated to meeting these needs (Kempton & Kahn, 1991). These individuals advocated sexual rights including research and education for the intellectually disabled. As a result, the Council on Sexuality and the Mentally Retarded guidelines were created and published in 1975 to be used by professionals to present training courses on this issue. Professionals in the U. S. and foreign countries used these guidelines for over 10 years.

The passage of the Rehabilitation Act, Section 504, in 1973 also addressed the needs of the intellectually disabled by entitling free, appropriate education to all children regardless of disability (Kempton & Kahn, 1991). Recognition of the need to guide parents, develop a body of knowledge from scratch, and establish policies and procedures in the area of sexuality education became evident.

With the development of AIDS and the unmasking of sexual abuse in the 1980s, new threats to mentally handicapped people were recognized. The need of sexuality education, including prevention and treatment, was evident (Kempton & Kahn, 1991). As a direct response to the increase of people with HIV, sex education programs began to

become visible (Whitehouse & McCabe, 1997). AIDS education was recommended to be integrated into special education curricula (Kempton & Kahn, 1991). Concern surrounding sexual abuse to people with intellectual disability also played an important role in recognizing the need for sexuality education (Whitehouse & McCabe, 1997). With 80% to 95% of persons with disabilities victimized during their lifetime, and over 90% of the perpetrators in care giving positions, the urgency of training in handling sexual abuse flourished as well (Kempton & Kahn, 1991).

More recently, recognition and acceptance of the sexuality of intellectually disabled persons are slowly becoming visible. Heterosexual relationships are not as restricted, and support is given from parents and professionals to those who choose to marry. National conferences on current issues are held, intellectually disabled persons are positively portrayed in the media, and more research is being conducted (Kempton & Kahn, 1991). Services have been developed to obtain ordinary jobs for people with intellectual disabilities, and mini-buses for transporting them have been discouraged as an effort to decrease discrimination (Whitehouse & McCabe, 1997). Services have also begun to consider the "physical appearance of their buildings to ensure that they were not stigmatizing" (Whitehouse & McCabe, 1997, p. 230). Although attitudes toward the sexuality of the intellectually handicapped are slowly becoming more positive, a lack of sexuality education and research in this area still exists (Kempton & Kahn, 1991, Whitehouse & McCabe, 1997). Much more sexuality education and research in the area of sexuality and people with intellectual disabilities are needed (Whitehouse & McCabe, 1997).

The lack of assessment instruments to evaluate the sexual knowledge, experience, attitudes, or needs of people with intellectual disabilities exemplifies the difficulties that

many people continue to have in accepting and valuing sexuality among them (McCabe, Cummins, & Deeks, 1999). Many instruments exist to use among the general population, but not for individuals with disabilities. Of the few created, Wish, McCombs, and Edmonson (1980) developed the Socio-Sexual Knowledge and Attitude Test (SKAT), the most comprehensive assessment measure developed to assess sexuality among people with intellectual disability. Ousley and Mesibov (1991) developed a sexuality vocabulary checklist and multiple choice questionnaire to assess sexual knowledge and experience. However, no psychometric evaluation was conducted and the range of areas covered was limited. McCabe, Cummins, and Deeks (1999) describe the development of a measure to consist of four in-build and related scales: sexual knowledge, experience, feelings, and need. Three different forms of the scale were created so that comparisons between disability groups and the general population would be possible. The Sexual Knowledge, Experience, Feelings, and Need Scale for people with mild intellectual disabilities (SexKen-ID), the parallel measures for people with physical disabilities (SexKen-PD), and a measure for the general population (SexKen-GP).

Parents' Beliefs

Very few studies have examined parents' beliefs toward the sexuality of their children with mental handicaps (McCabe,1993). Early studies show that most parents viewed their intellectually disabled children as asexual and innocent believing that sexuality education programs will only corrupt their "innocent" children (Craft & Craft, 1981, p. 494). In studying parents' reactions to their children's sexual expression, Goodman (1973) found that responses ranged from understanding and supportive to desexualizing their mentally handicapped children, such as sterilization. He concluded

that overall most parents had a desire to help their children, but lacked knowledge. Alcorn (1974) discovered that 62% of parents, participating in a comprehensive evaluation of attitudes toward trainable mentally handicapped children, felt uncomfortable or unsure about their ability to provide sexuality education. However, 80% of these same parents believed that it was the responsibility of the family. They expressed negative views concerning marriage and parenthood for their children, and most reported positive attitudes toward sterilizing them.

The Committee on Children with Disabilities (1996) believes that many parents are challenged because they deny their child's sexuality, fear sexual exploitation or pregnancy, and have difficulty deciding what and how to tell their child. Limited recent studies show parental attitudes toward sexuality issues vary with increasing support, although many are unsure about the worries of their children and fear for their child's vulnerability to AIDS and sexual assault (Ruble & Dalrymply, 1993). Today, parents hold fears of community rejection of their disabled children and struggle to manage the continuous care and needs of their sons and daughters (Brown & Farm, 1994). Katoda (1993) suggests that parents of children with mental handicaps find it stressful to teach about sexuality. This is especially true during puberty when there is an imbalance between their children's physical maturation and psychosocial development. The major concern for parents of mentally handicapped children generally focuses around sexual ignorance leading to sexual exploitation and inappropriate behavior (Craft & Craft, 1981; McCabe, 1993). Although many parents feel sexuality education is important for their children with intellectual disabilities, they lack the knowledge and comfort to teach it (The Committee on Children with Disabilities, 1996).

More recently, Ruble and Dalrymple (1993) conducted a parental survey addressing the sex education, social sexual awareness, and sex behaviors of their children with autism. Parents' main concern was for their child's behavior being "misinterpreted as sexual, followed by sexual behaviors being misunderstood" (p. 235). Of the parents surveyed, 19% with males feared their son would get someone pregnant, and 61% of parents with females feared their daughter would get pregnant. Parents of daughters reported concern of their "being taken advantage of by an opposite-sex person," and parents of males reported concern of their being "abused by a same-sex person" (p. 235). Information on the "relevance of sexual relations for people with autism" was the most frequently requested resource followed by information on the possibility of controlling self-touch or masturbation (p. 239). Parents with daughters were more concerned about "whether birth control should be practiced" (p. 239). Of the 45% of children who received sex education in this study, 55% of them received this education at school and 52% at home (Ruble & Dalrymple, 1993).

In an international study, Katoda (1993) surveyed parents and teachers in Stockholm and Tokyo regarding their attitudes toward sex education for their mentally handicapped children. Parents of 15- to 16-year-old mentally handicapped children were asked which were the most important areas within health and sex education to teach. Parents in Stockholm ranked "health in general" (39%) first, followed by "sex and interpersonal relationships" (39%) second. "Growing up" (12%) was ranked third. In Tokyo, parents ranked "sex and interpersonal relationships" (38%) as the most important followed by "moral/social attitude" (11%) second. "The human body" (3%) was ranked third.

Mentally Handicapped People's Beliefs about Their Sexuality

Although only a limited number of studies have examined the beliefs toward sexuality of people with disabilities, similar results have been discovered (Lunsky & Konstantareas, 1998). Overall, adolescents and adults with mental retardation tend to hold conservative and negative beliefs toward sexuality. Edmonson, McCombs, and Wish (1979) discovered that over half of 199 adults interviewed with mild to severe mental retardation held negative attitudes toward homosexuality, masturbation, and intercourse. In another study conducted by Timmers, DuCharme, and Jacob (1981), 25 mentally handicapped adults living in apartment settings were interviewed. Although most approved of masturbation, less than 50% approved of any homosexuality and only 60% approved of women initiating dates. In a 1985 study, Brantlinger found that eight of 13 adolescents disapproved of homosexuality, and 10 thought sex was dirty. However, 11 students reported that they would like to have more sexuality education in school and all 13 said they would like to learn more about sex. Through interviews, McCabe and Cummins (1996) discovered that mild mentally handicapped adults held more negative feelings toward sexual intercourse, oral sex, masturbation, and homosexuality than university students did. Most recently, Lunsky and Konstantareas (1998) compared the attitudes toward sexuality of individuals with developmental disabilities compared to Canadian and American college students. Participants with developmental disabilities were significantly less accepting of 12 of the 20 situations depicted. Topics ranged from dating behavior such as kissing and intercourse, birth control, marriage, masturbation, and homosexuality.

Reasons for negative beliefs toward sexuality of individuals with intellectual disabilities may be explained by the lack of resources and exposure to safe, enjoyable,

and healthy approaches to sexuality (Lunsky & Konstantareas, 1998). Peers, parents, and teachers who help them form their attitudes may have limited knowledge and training to promote healthy sexuality. Betz (1994) reports that parental overprotection, which extends into areas such as social relationships and sexuality, is a major complaint voiced by teens with disabilities. This effort may serve as a form of protection by parents and staff (Craft & Craft, 1981).

The Need for Sexuality Education for Mentally Handicapped Students

Mentally Handicapped Children as Sexual Beings

Sexuality impacts the mental, physical, and social aspects of life regardless of intellectual capacity (Lunsky & Konstantareas, 1998). Experiences and interactions with peers and caregivers shape personal views regarding sexuality and affects feelings and behavior toward oneself and others. To practice protected sexual behaviors and enjoy relationships, Lunsky and Konstantareas (1998) assert it is important for individuals with intellectual disabilities to be comfortable with their own sexuality. Toomey (1993) states, "Sexuality impinges on the safety of these people and the level of trust with which they are accepted. It affects their friendships and the quality of their social interactions, and it lies at the core of their personal fulfillment as individuals" (130).

Despite the traditional belief that the intellectually disabled are asexual, Duh (1999) reports that more recent studies validate that they are aware of their sexuality. In a study of parents with autistic children, Ruble and Dalrymple (1993) discovered that 65% had touched their genital area in public, and 28% had removed clothing in public. This represents the need for sexuality education to teach appropriate sexual behavior (Ruble & Dalrymple, 1993). Twenty-three percent of subjects in their study had masturbated in

public, and 18% had touched the opposite-sex inappropriately as reported by their parents. A similar study by Ousley and Mesibov (1991) compared mildly to moderately mentally disabled adults without autism to adults with autism. Masturbation was experienced more than twice by 55% of autistic males, 20% of autistic females, 60% of mentally retarded males, and 30% of mentally retarded females. Kissing a nonrelative of the opposite sex at least twice was experienced by 9% of autistic males, 40% of autistic females, 70% of mentally retarded males, and 60% of mentally retarded females. Thus several studies document that disabled individuals are sexual and that little attention is given to their sexual needs (Duh, 1999). The Committee on Children with Disabilities (1996) reports that such youth develop secondary sex characteristics in the same way as children without disabilities, but need "more help, not less," in understanding these changes and the strong emotions and drives that are experienced (p. 277).

Sexuality Knowledge and Behavior

Many children with mental handicaps appear to be profoundly uninformed or misinformed about sex and may have limited or inaccurate knowledge (Brantlinger, 1985; McCabe, Cummins, & Reid, 1994). Most mentally handicapped children receive little formal sex education and mainly rely on information from parents who tend to be embarrassed or uncomfortable with the topic (Betz, 1994). Through interviews with 30 mildly intellectually disabled individuals, McCabe and Cummins (1996) found that people with mild intellectual disabilities demonstrated lower level of knowledge in all areas of sexuality, except menstruation and body parts identification, when compared to college students. Although they were found to have a higher experience of pregnancy, masturbation, and sexually transmitted diseases, the mild intellectually disabled group

was less experienced in the areas of intimacy and sexual intercourse. There was no difference in the experience of sexual abuse between the groups; however, the mild intellectually disabled group revealed more negative feelings toward sexual issues. In a similar study conducted in Taiwan, Duh (1999) found that students with disabilities possess less knowledge and a more negative attitude toward sexual issues but reported more sexual experiences than their peers without disabilities.

In a study addressing sexual behavior of adolescents with chronic disease and disability, Suris, Resnick, Cassuto, & Blum (1996) found that sexual behavior was similar to adolescents without disease and disability. There was no difference among males or females with and without disability reporting ever having sexual intercourse. No group differences were found in pregnancy history, although a significantly greater proportion of females with disabilities reported a history of STDs. Findings from these studies suggest that disabled students posses less knowledge and engage in as much sexual behavior as their nondisabled peers.

The Sexual Exploitation and Abuse of the Intellectually Disabled

A serious threat for adolescents with developmental disabilities is sexual abuse (Betz, 1994). The literature suggests that women with disabilities are likely to experience sexual abuse in their lifetime and that the rates of sexual abuse of males with disabilities are significantly higher than those of nondisabled males (The Roeher Institute, 1994; Sobsey, 1994; Stimpson & Best, 1991). Of women with disabilities, 83% will be sexually assaulted in their lifetime (The Roeher Institute, 1994). This is more than triple the 25% of women overall who will be sexually assaulted in their lifetime. Up

to 68% of girls and 30% of boys with intellectual disabilities will be sexually abused before 18 years of age (The Roeher Institute, 1994).

The intellectually disabled have been reinforced for compliant behavior, trained to be physically dependent, and isolated. These are the factors that may increase their vulnerability to sexual abuse (Crossmaker, 1991). In addition, they tend to be nonassertive and, if directed to do so, agree to participate in sexual acts (Betz, 1994). Moreover, they demonstrate poor judgment in determining other people's motives who may target intellectually disabled perceiving them as an ideal victim (Craft & Craft, 1981). Crossmaker (1991) suggests that offenders choose potential victims who are unlikely to resist or report, increasing the risk of victimization of people perceived as disabled.

Sobsey (1994) found that the most common factors believed to have increased vulnerability of people with intellectual disability to sexual assault included: lack of knowledge about sexual assault, too much compliance or lack of assertiveness, and communication difficulties. Although accurate estimates of sexual abuse may be difficult to establish, Chamberlain, Rauh, Passer, McGrath, & Burket (1984) reported that 25% of developmentally disabled females had been sexually assaulted. A more current study by McCabe et al. (1994) found no significant difference when comparing the level of sexual abuse of people with intellectual disability with a student population. However, the people with intellectual disabilities had less sexual knowledge and were less likely to have negative feelings about the abuse. They were more likely to believe that the abuser had the right to decide when to engage in sexual activity.

Sobsey and Doe (1991) analyzed 162 reports of sexual abuse and sexual assault to victims with disabilities. Of this sample, 70% were intellectually disabled. The

researchers conclude that abuse and assault are frequently repeated and often result in significant physical and emotional harm to the victim. Seventy-nine percent of the individuals were victimized more than once. However, assaults are rarely reported to child welfare or law enforcement authorities. The researchers discovered that many (44%) of the offenses are committed by paid service providers and occur in disability service settings. Other offenses occur in the same situations as sexual abuse and assault of victims without disabilities. In 96% of the cases, the victim knew the perpetrator. Finally, the researchers discovered that victims with disabilities often find it difficult to obtain treatment services that are accessible and appropriate to their needs even after abuse is disclosed.

Lack of positive social interaction is another reason for increased vulnerability to sexual assault. Intellectually disabled teens experience social difficulties with peer relationships as much as twice that of nondisabled peers (Betz, 1994). McKinlay, Ferguson, and Jolly (1996) discovered parental concern of their children with severe learning disabilities and social interaction with strangers. Reports from parents of the 71 subjects showed that only 27 felt their sons or daughters could interact appropriately with casual acquaintances. Twenty-five subjects considered their children to be socially naïve or passive, 11 considered them to be aloof, and 11 felt they were overly friendly to strangers. Of the parents of 42 male subjects, 13 felt their sons were particularly vulnerable, and one had been sexually assaulted on two occasions. Another had been touched inappropriately by an older teen. Two parents of sons were afraid of them being with male caretakers. Of the 29 parents of females, 13 felt their daughters were vulnerable, and five reported their daughters being sexually assaulted: one by two boys

with learning difficulties at college, one at a bus stop, one by a neighbor, one at a day center, and one by a 13-year-old boy.

"There is a general agreement that sexual assault is occurring against people with intellectual disability at alarming rates and that treatment services to address the needs of people with intellectual disability who have been sexually assaulted are urgently required" (Whitehouse & McCabe, 1997, p. 232). Although no research has been conducted to determine the effect of sex education on the vulnerability of the intellectually disabled, researchers call for more sex education to increase knowledge of sexual assault and future studies to evaluate the effectiveness (Whitehouse & McCabe, 1997). Abuse prevention is a crucial component of sex education for this population who is particularly vulnerable. The Committee on Children with Disabilities (1996) reports that the best protection for children from abuse is effective education regarding sex and their right to assert themselves in refusing sexual advances. It is hoped that through education, healthy relationships will be encouraged and negative relationships involving sexual assault will be identified and avoided (Betz, 1994).

Current Sexuality Education for Special Education Students

Current Programs

Much of the sex education for students with learning disabilities to date focuses on biological rather than social issues. The material assumes a heterosexual preference and presents a context of the family for all relationships to be experienced by the individual (Brown & Farm, 1994). Many experts suggest that current sexuality education programs for children with all disabilities should be more comprehensive, focusing more on abuse

prevention and including lessons on healthy relationships, assertiveness, conception, contraception, and protection from STDs (Committee on Children With Disabilities, 1996; McCabe & Cummins, 1996). McCabe and Cummins suggest focusing more on interpersonal domains so that people with disabilities can experience the pleasure of forming close, caring relationships. However, education materials for children without disabilities may not be relevant for children with disabilities. They must be tailored to the specific level of understanding of disabled children (Committee on Children With Disabilities, 1996).

Although little research documents the effect of sexuality education for people with intellectual disabilities, Lindsay et al. (1992) showed significant increases in knowledge among this population after a course of sex education. Forty-six subjects with mild to moderate intellectual disabilities received a sex education program of 9 months. A 3-month follow-up suggested significant increases in sexual knowledge in areas of parts of the body, masturbation, puberty, intercourse, pregnancy and childbirth, birth control, and sexually transmitted diseases. This program includes role-play, films, and sex education material from the Scottish Health Education Council (Lindsay et al.).

Several current resources exist that can be used to teach sexuality to children with disabilities. Sex Information and Education Council of the United States [SIECUS] (1993) provides an annotated bibliography of available print materials including books, curricula, journals, and newsletters for both educators and parents. A list of organizations and databases are also provided to assist with teaching sexuality education to this population.

Special Education Teachers and Sexuality Education

Special Education Teachers' Beliefs

Only a limited number of studies have examined special education teacher's beliefs toward including or avoiding sexuality education programs for children with mental handicaps. Brantlinger (1992) studied special education teachers' current practices and factors that influence their willingness to teach sexuality to mild mentally handicapped students. Twenty of the 22 teachers interviewed believed teaching sexuality education was important saying, "the need is extreme," and "it may be the most important part of the curriculum for secondary students" despite the fact that only eight offered any instruction in this topic (Brantlinger, 1992, p. 35). All but one teacher reported that thorough and accurate sexuality information might reduce problems with sexuality and intimate social relationships. Teachers reported a multitude of problems related to sexuality, relationships, and parenting among their mild mentally handicapped students.

In this same study, the greatest rational for sexuality education given by the teachers was the perception that students were unwittingly engaging in potentially dangerous sexual behaviors. They believed sexuality education would decrease their likelihood of students experimenting with sex out of curiosity, reduce their vulnerability to abuse, enhance their self-esteem, and make them aware of risky sexual behaviors. Nineteen teachers felt students wanted sexuality education at school, even though students may "be embarrassed at first" (Brantlinger, 1992, p. 35). Although 8 teachers expressed concern about negative parental or community responses, 14 felt that the majority of parents wanted their children to receive sexuality education. Only 4 teachers reported a sense of "wariness" about teaching sexuality education, and 6 claimed it had

not occurred to them to teach sexuality education. The greatest impediment to teaching sexuality education, as perceived by the teachers, was lack of administrative support. In conclusion, participants felt "inadequate and uneasy" in the role of a sexuality educator and suggested preservice preparation and more support from administrators to improve their perceived ability.

As part of an international study surveying both parents and teachers of young people with mental handicaps in Tokyo and Stockholm, Katoda (1993) discovered teachers had a very positive attitude toward teaching sexuality to their students. In Stockholm, 90% of participants reported supporting elementary information about sexual intercourse for students as compared to 71% of participants in Tokyo. All participants in Stockholm and 83% of participants in Tokyo believed people with mental handicaps should get contraceptives if they wanted. When reporting whether people with mental handicaps have the right to make their own decisions about their own sexual lives, 70% of participants from Stockholm and 51% of participants in Tokyo agreed.

Professional Preparation

A highly skilled educator is said to be a key component in teaching sexuality education (Foley & Dudzinski, 1995). However, special education teacher preparation programs provide minimal instruction to deliver sexuality education. Although 50% to 60% of preservice programs have requirements that include sexuality education, most approved coursework does not include a course but is rather part of a larger class, such as personal health (Brantlinger, 1992). Instructional competencies used to teach sexuality education are part of the professional development curriculum of preservice programs yet to be documented (Nagy & Nagy, 1987).

Justice (1996) surveyed all secondary special educators in one county of rural southeastern Ohio. The instrument included eight questions related to the topic of family life education intended to elicit information of (a) preservice coursework on teaching sexuality education to special education students, (b) teacher preparation in continuing education on the topic, (c) whether family life education is currently being taught by the special educator, and (d) their teacher's attitudes toward family life education.

Of the 18 respondents, only 5 reported having family life education topics within their preservice program, and 8 reported receiving additional training through workshops or inservice trainings on sexuality education for exceptional students. Ten reported feeling trained to teach family life education, yet 14 taught this topic within the special education classroom. A majority, 15, felt teaching family life education to special education students is a responsibility of the special educator.

Foley & Dudzinski (1995) examined the extent that preservice and inservice training activities prepare special educators to deliver sex education. Special education teachers teaching grades 9 through 12 completed a questionnaire assessing the adequacy of their professional preparation and level of competence to teach sexuality education courses. Findings suggested that special education teachers receive minimal instruction yet perceive themselves to have average competency in teaching sexuality education. Less than one-third of the participants reported their preservice preparation was adequate for 10 of the 12 sex education competencies listed. Knowledge of human growth and development was identified as a strength of their preservice preparation, whereas knowledge of prevention of sexual abuse and legal issues of human sexuality were identified as the weaknesses. It was also discovered that professional preparation is largely focused on instructional methodology rather than specific content areas. In

conclusion, Foley and Dudzinski (1995) reported that one's attitude and comfort level discussing sexuality appears to influence their interest in teaching sexuality education. Individuals with higher levels of comfort and a more positive attitude tend to continue teaching sexuality courses. They are also apt to include a broader range of topics into the curriculum (Foley & Dudzinski, 1995).

Brantlinger (1992) interviewed 22 special education teachers instructing students with mild mental handicaps and discovered that only nine claimed to have any form of sexuality education in their preservice preparation. Seven participants had a small amount of preservice coverage such as one or two class sessions in a course. Of these seven participants, four claimed to have had only "very little" or "bits and pieces" of instruction (Brantlinger, 1992, p. 34). Two participants, previously home economics teachers, judged their preparation to be "fairly good" (p 37).

In another study, May, Kundert, and Akpan (1994) surveyed chairpersons of 185 special education training programs. The purpose of this study was to determine the level of preservice preparation of special education teachers in the area of sexuality education. Although 61% of the respondents reported some preparation in sex education for their college students, the majority of courses were either electives or a few hours of coverage within other classes. The actual reported classroom time spent on sex education varied from 45 minutes to 15 hours per course, with an average of 4.5 hours. May (1980) suggested a separate methods course in sex education, similar to the required methods courses in reading, math, and science or a one or two day workshop at minimum.

In conclusion, based on these studies, special education teachers are receiving minimal professional preparation for teaching sexuality education to their special

education students (Brantlinger, 1992; May et al. 1994; Nagy & Nagy, 1987). The actual amount of professional preparation remains unclear since special educators may have received training as an elective sexuality course, as part of another course such as health, or through a workshop or inservice. Despite these limitations in preparation, many special education teachers perceive themselves to be qualified to teach this topic or feel responsible to teach it (Foley & Dudzinski, 1995; Justice, 1996). Finally, these studies suggest that sexuality education should be an integral part of university preservice programs for special educators (Brantlinger, 1992; Foley & Dudzinski 1995; Justice, 1996; May et al., 1994).

Special Education in Florida

Florida certification requirements to teach mentally handicapped students

In the state of Florida, special education teachers may select mentally handicapped as one of eight exceptional student education areas for certification in grades K-12 (Division of Professional Educators, 2000). The eight areas for certification in special education grades K-12 include emotionally handicapped, hearing impaired, mentally handicapped, physically handicapped, specific learning disabilities, speech-language disabilities, speech-language impaired, varying exceptionalities, and visually impaired. All special education certifications require a bachelor's degree with specific courses related to their area of certification (Division of Professional Educators).

There are three degree options from which special education teachers may select for certification in the area of mentally handicapped training (Division of Professional Educators, 2000). Under option one, an undergraduate or graduate major in mentally handicapped is required. Option two requires bachelor's degree or higher with 30

semester hours in exceptional student education. These 30 hours must come from two components: (a) basic exceptional student education and (b) specialized courses for education of students who are educable, trainable, or profoundly mentally handicapped. The third option for certification to teach mentally handicapped students requires a bachelor's degree with specialization requirements completed in one of the other seven areas of exceptional student education with credit in specialized courses for education of students who are educable, trainable, or profoundly mentally handicapped (Division of Professional Educators, 2000).

Although each college or university in Florida must follow the state mandates mentioned above, all have the opportunity to design their own curriculum requirements for certification in special education. With great flexibility in preservice coursework, it is difficult to determine how much education one has received about human sexuality education.

Special education students: Requirements and practice

Since the 1982-1983 school year, Florida has had a statewide course description for exceptional student education (ESE), (Florida Department of Special Education, 2000). Originally called "Curriculum Frameworks," this course description has been renamed "Florida Course Descriptions." Requirements include a list of related standards from the Sunshine State Standards for Special Diploma, or graduation in Exceptional Student Education (ESE). Each Standard describes expectations for special educational students based on their individual level of functioning.

Exceptional students are classified in one of three levels of functioning:

1. Independent students are expected to be able to perform the skill or use the knowledge on their own.

2. Supported students are expected to require some type of prompt, supervision, or use of assistive technology to be able to perform the skill or use the knowledge required for the task.

3. Participatory students are expected to require assistance to be able to participate in the particular activity or task (Florida Department of Education, 2000).

In special education in Florida, required courses for ESE students are determined based on their classified functioning level. Required courses for independent students, those with the most requirements, at the secondary level include reading, English, life skills reading, life skills reading, math, life skills math, science, health and safety, social studies, and career education and life management and transition. "Preparation for Postschool Adult Living" is a special skills course required by all three levels of functioning. However, no specific topics to be included or time requirements for certain topics are specified. Individual school boards have a Special Programs and Procedures for Exceptional Students and can determine their own requirements (Florida Department of Education, 2000).

Summary

Although sexuality education for intellectually disabled individuals has gained some recognition, very few studies have addressed special education teachers' beliefs, professional preparation, and practice in delivering sexuality education. Involvement of teachers is important to address their concerns and needs to improve the sexual health of their students. Continued research is needed to address these topics.

This chapter provided a review of the related literature. Chapter 3 describes the methods and materials used to conduct this study. In Chapter 4, results of the research questions are reported. Discussion, conclusions and recommendations are presented in Chapter 5.

CHAPTER 3
METHODOLOGY

Introduction

This study examined the beliefs of Florida special education teachers about teaching sexuality education to educable mentally handicapped, special education students. The study examined (a) Florida special education teachers' beliefs about the need for providing sexuality education to special education students classified as educable mentally handicapped, (b) the range of sexuality topics they teach, (c) their professional preparation in sexuality education, (d) when they believe sexuality education should be taught to special education students, (e) whether their beliefs about the need for teaching sexuality education predict the sexuality topics included in instruction, and (f) whether their professional preparation affects their beliefs about the need for teaching sexuality. The purpose of this chapter is to provide a description of the (a) participants, (b) instrumentation, (c) procedures, and (d) analysis that were used in this study.

Participants

Participants in the study included Florida special education teachers who met two criteria: They held a Bachelor of Science degree in special education, and they currently were teaching special education students classified as educable mentally handicapped in grades K-12. Of approximately 22,000 special education teachers in Florida, 988 hold certifications to teach exceptional education to educable mentally handicapped students

and are currently teaching K-12 (Tsung-Yuan Lin, program specialist, DOE, personal communication, October 9, 2000). The Florida Department of Education (FDOE) provided a complete list of these teachers for the 2000-2001 school year.

Using the total population, N = 988 teachers, participants were randomly assigned to either the pilot group (n = 494) or to the study group (n = 494). In order to obtain representative data, 494 participants were selected to ensure a response rate of at least 10% of the total population for both the pilot study and actual study (Krathwohol, 1998). Random assignment, completed using the statistical program SPSS, ensured that all special education teachers had an equal mathematical opportunity to be included in the study. Assignment of one participant had no effect on the assignment of any other participant (Krathwohl, 1998). The study was approved in advance by the University of Florida Institutional Review Board (Appendix A).

Instrumentation

The researcher developed a three-section survey instrument from items used in previous research studies identified based on an extensive review of the literature (Appendix B). Participants completed the instrument using a scan-tron sheet provided.

Section I

The first section of the instrument used a Likert-type scale format to determine participants' beliefs about teaching sexuality. Thirty-six sexuality education topics recommended by SIECUS as defining comprehensive sexuality education were represented in the instrument. The 36 topics were categorized by the six key concepts of sexuality education identified by SIECUS. Participants rated the topics from (1) strongly disagree to (5) strongly agree reflecting their beliefs about the importance of teaching

each topic to educable mentally handicapped students. To determine when special education teachers feel sexuality education should be taught to educable mentally handicapped students and nonmentally handicapped students, participants were asked to select "YES" or "NO" for elementary, middle, or high school.

Section II

The second section of the instrument examined if the special education teachers actually teach sexuality education, and if so, which specific topics they include. The first question asked participants if they teach sexuality education at all. Participants responded by selecting "YES" or "NO." To determine which of the 36 sexuality education topics the participants teach, they were asked to select "YES" or "NO" after each topic. The 36 topics were again presented under the six key concepts as they are categorized.

Section III

In the final section of the instrument, participants responded to several questions regarding their professional preparation in sexuality education and their demographic characteristics. Participants evaluated their professional preparation in teaching sexuality education on a Likert-type scale ranging from (1) excellent to (5) poor. They were also asked to report if and where they received sexuality education by selecting "YES" or "NO" after several options. Demographic questions concerning number of years teaching, education level, grades participants teach, gender, and age were requested as well. Participants were invited to share additional information or offer narrative comments at the end of the instrument.

Instrument Development

Phase I

The instrument was pilot-tested in two phases. In the first phase, a panel of 3 experts in special education and sexuality education was chosen to test the instrument for content validity (Appendix C). This type of validity confirms the degree to which a sample of items represent the skills or characteristics the instrument is intended to measure (Krathwohl, 1998; McDermott & Sarvella, 1999). Each expert received a personalized cover letter requesting his or her participation (Appendix D). They were asked to make suggestions concerning the introduction, the instrument directions, and each item. They were asked to consider the flow of the instrument, content, placement of questions, and the wording of questions and directions. A self-addressed return envelope also was provided. The instrument was revised according to the panel's suggestions. Revisions included slightly changing directions for clarity and consistency. One expert suggested adding "hygiene" and "self-care" to the list of 36 topics as well as an additional section of topics on "positive self esteem." The researcher decided to not add these topics since this study focused on the established 36 sexuality education topics developed by SIECUS.

Phase II

The second phase of the pilot study tested the instrument for reliability. A pilot test of the instrument was conducted following revisions based on the expert panel review. A sample of half (n = 494) of the special education teachers certified to teach educable mentally handicapped students in grades K-12 were included. A list of all teachers certified to teach this population was obtained from the Florida Department of Education.

The 494 pilot participants were randomly assigned to the pilot study from the population of 988 special education teachers certified to teach educable mentally handicapped students. The pilot participants were not included in the population from which the actual 494 study participants were assigned.

The methodology for mailed surveys developed by Dillman (2000) was followed. Pilot participants were first sent a personalized cover letter (Appendix E), the survey, and a postage paid return envelope inviting them to participate in the pilot test. Of the 494 pilot participants, half (n = 247) received a scan-tron sheet to record their answers, and the other half (n = 247) was asked to record their answers on the survey by circling their choices. This approach was implemented to determine the response rates of both methods. Of the pilot participants who were sent scan-tron sheets, 72 returned their completed survey for a response rate of 29%. Of the pilot participants who were asked to record their answers on the survey, 87 returned their completed survey for a response rate of 35%. Both methods produced a response rate well over 10% of the total population. With only a 6% difference in response rate between these two methods, the researcher decided to administer the scan-tron sheets for the actual study. By having the data scanned and recorded by the University of Florida Office of Instructional Resources, less chance of miscoding error exists.

The pilot test required a response rate equal to10%-15% (n= 49-74) of the actual sample of 494 (Tuckman, 1999). Since only one mailing of the survey was sent, 494 surveys were mailed to ensure that at least 49 were received. Completing the survey required approximately 20 minutes. Five days after the initial mailing, a reminder post card was sent to all 494 pilot participants thanking them if they had completed the instrument, and asking them to do so if they had not (Appendix F). Of the 494 surveys

mailed, 159 were returned and usable and 6 were marked, "return to sender," yielding a response rate of 32.6%.

Reliability testing was conducted in several ways. First, the researcher conducted a reliability analysis of the 36 likert-type scale questions in the first section of the survey to determine reliability of the instrument. Using Cronbach's Alpha, the alpha level of the overall scale of the 36 topics was .9526. An item to total correlation was conducted on each of the 36 topics. The item to total scores ranged from .3438 to .8115 with an average of .5806. Items should be retained if they rated equal to or greater than .40 in terms of difficulty and discrimination (Stevens, 1992). Only one item, question 12, rated lower that .40 at .3438. Since this question, which asks participants to rate beliefs toward teaching values, is included in the 36 guidelines established by SIECUS, it was decided to include the question. Table 3-1 presents these findings. The reliabilities of each of the six concepts ranged from .8297 to .9311 with an average of .8883 per construct.

Table 3-1. Item Analysis and Alpha Coefficient Results for Each Sexuality Key Concept Area Subscale

Key Concept	# of Items	Mean	Std. Dev.	Alpha
1: Human Development	5	20.89	.62	.83
2: Relationships	6	27.94	3.03	.88
3: Personal Skills	6	28.64	2.34	.90
4: Sexual Behavior	7	24.29	6.84	.93
5: Sexual Health	5	21.76	3.90	.86
6: Society and Culture	7	25.01	6.43	.93

Data Collection Procedures

Mailed Survey

Once the pilot test was completed, surveys were mailed to 494 Florida special education teachers assigned to the actual study group. Survey research allows investigators the opportunity to identify characteristics about individuals in a specific setting or group. This can be done in a relatively rigorous and unbiased manner (McDermott & Sarvela, 1999). Through survey research, data collection can be administered to a large sample relatively quickly. Data analysis is uniform and typically does not require subjective interpretations (McDermott & Sarvela, 1999). Despite these advantages of survey research, a concern with this methodology is a possible low response rate. Motivation and the availability of participants determine the response rate (McDermott & Sarvela, 1999). The survey methodology followed recommendations from *Mail and Internet Surveys: The Tailored Design Method, 2nd ed.* (Dillman, 2000).

In the first mail out for this study, contents included a personalized cover letter, the survey, a scan-tron sheet, and a preaddressed, postage-paid return envelope. The cover letter explained that the survey was to be completed voluntarily and that all answers would remain confidential (Appendix E). The special education teachers were instructed to record their responses on the survey and return the instrument in the self-addressed, postage-paid return envelope. Scan-tron sheets were coded to identify who had returned the survey. An identification number was assigned to each scan-tron so respondents' names could be checked off a master mailing list when the questionnaires were returned. Five days after the surveys were sent, reminder postcards were sent to all participants to encourage them to return the completed instruments if they had not done

so (Appendix F). Ten days later, a follow-up letter (Appendix G) including a new instrument, scan-tron sheet and preaddressed, postage-paid envelope was sent to participants who had not responded (n = 314).

Data Analysis

Data were electronically read from the scan-trons by the University of Florida Office of Instructional Resources. The data were recorded as raw data onto a disk. The researcher then uploaded the data into the statistical program SPSS for analysis. Data were analyzed using descriptive and inferential statistics. Descriptive statistics allowed the researcher to summarize attributes of number sets and understand data sets (Krathwohl, 1998). Descriptive statistics including means, standard deviations, and frequency distributions were calculated to describe the data set. A significance level of $p < .05$ was set to identify significant correlations between items. Based on pilot results of the factor analysis resulting in high integrity of the subscales (the six key concepts), the researcher decided to make evaluations based on the six key concepts rather than each of the 36 topics

To examine Florida special education teachers' beliefs about the need for providing sexuality education to special education students classified as educable mentally handicapped, descriptive statistics were calculated for questions 1-36. Means and standard deviations were calculated for each topic and each key concepts. These questions were treated as nominal data.

To determine the range of sexuality education topics taught, questions 43 and questions 44 through 79 were treated as nominal data. Descriptive statistics, including frequency and percentage, were calculated on question 44 to determine if Florida special

education teachers actually report teaching sexuality education topics at all. Frequency was calculated for questions 44 through 79 to determine what percentage of teachers teach those topics.

Several questions were included to determine the professional preparation of Florida special education teachers in sexuality education. Descriptive statistics, including frequency and percentage, were calculated for questions 81 through 88. These data were treated as nominal. A mean and standard deviation was also calculated for question 88, which asked participants to rate their professional preparation.

To determine when Florida special education teachers believe sexuality education should be taught, questions 37 through 42 were treated as nominal data. Descriptive statistics, including frequency and percentage, were calculated.

To determine if teachers' beliefs about teaching sexuality education predict the sexuality topics included in their actual instruction, the key concepts in questions 1 through 36 and questions 44 through 79 were compared and treated as continuous data. The independent variables included the beliefs regarding the need for sexuality education in each key concept (questions 1-36). This score was derived by summing the total responses under each key concept. The dependent variable was the number of topics taught under each key concept (questions 44-79). This score was derived by summing the total number of topics teachers reported teaching under each key concept. A regression analysis was conducted on each key concept.

To determine if professional preparation affects the beliefs of Florida special education teachers in teaching sexuality, six 1-way ANOVAs were conducted. The independent variables, question 81, questions 82, and a combination of questions 81 and 82, determined whether participants had professional preparation to teach sexuality

education. The dependant variables included the beliefs regarding the need for sexuality education in each key concept (questions 1-36). This score was derived by summing the total responses under each key concept.

Ethical Considerations

Due to the sensitivity of the topic under study, ethical considerations for this study included utilization of voluntary participation. Through explanation in all cover letters, participants were notified of their option to not participate and their right to confidentiality. This study involved no risk to the participants other than disclosure of personal information. Issues such as data confidentiality and personal privacy were considered (Krathwohl, 1998).

Summary

This chapter described the methods and materials used to conduct this study. A description of the participants, instrument development, pilot test, data collection, and data analysis are provided. In Chapter 4, results of the research questions are reported. Discussion, conclusions and implications are presented in Chapter 5.

CHAPTER 4
RESULTS

This study examined the beliefs of Florida special education teachers about teaching sexuality education to special education students classified as educable mentally handicapped. This chapter presents the data collected by the methods described in Chapter 3 using a mailed, scan-tron, self-report instrument. The demographics and profile characteristics of the participants are presented and the findings of data analysis related to the research questions are reported.

Study Demographics and Profile Characteristics

This section describes the demographic and profile characteristics of the participants in this study: Special education teachers in Florida who hold a bachelors degree in special education are certified to teach educable mentally handicapped children and currently teach educable mentally handicapped students in grades K-12. The defined population for this study was all Florida special education teachers with the above requirements. A complete list of these professionals for the 2000-2001 school year was obtained through the Florida Department of Education. Of the 22,000 special education teachers in Florida, 988 are certified to teach educable mentally handicapped students and are currently teaching this population of students in grades K-12. Of this total population (N = 988), half (n = 494) were randomly assigned to the pilot study and half (n = 494) to the actual study.

Of the 494 teachers assigned to participate in the study, 206 completed and returned an instrument yielding 203 usable instruments. Rejection of the three questionnaires was based on identifying errors in completing the scan-trons. More specifically, three participants who consistently selected answers that were not designated response options were deleted. Seven participants returned uncompleted instruments selecting to not participate. Reasons for electing to not participate ranged from not currently teaching in the classroom, presently teaching other classifications of exceptional students, and personal reasons. Another 21 instruments were returned to the researcher and stamped "returned to sender." The overall response rate was 45%.

Demographics

Of the participants, 89.4% were females (n = 168) and 10.6% were males (n = 20). Their reported ages were as follows: 12.4% (n = 23) were between the ages of 20 and 29, 19.9% (n = 37) were between the ages of 30 and 39, 41.4% (n = 77) were between the ages of 40 and 49, 24.7% (n = 46) were between the ages of 50 and 59, and 1.6% (n = 3) were 60 years of age or older.

Teaching Experience and Education

Of the participants who completed questions 91, 92, and 93, 50% (95) currently teach elementary school, 32.1% (60) currently teach middle school, and 18.8% (35) currently teach high school. When reporting the highest degree received, 49.7% (96) of the participants reported a bachelor's degree, 45.6% (88) reported a master's degree, and 4.7% (9) reported a specialist degree. None of the participants reported a doctor's degree. Over half of the participants had been teaching special education for 12 or more years. Table 4-1 presents the number of years participants reported teaching special education.

Table 4-1. Descriptive Statistics Presenting Years Experience Teaching Special Education

Number of Years	n	Percent
0 – 2 years	19	9.4
3 – 5 years	40	19.8
6 – 8 years	25	12.4
9 – 11 years	14	6.9
12 or more years	104	51.5

Teachers' Beliefs Regarding Need

What do Florida special education teachers' believe concerning the need for providing sexuality education to educable mentally handicapped students? Descriptive statistics were calculated to examine the beliefs of Florida special education teachers toward the need for teaching sexuality education to students classified as educable mentally handicapped. Means and standard deviations were calculated on each of the 36 sexuality education topics individually and on the overall six key concepts under which the topics fall.

Twenty of the 36 topics received a mean score of at least 4, on a scale of 1 (strongly disagree) to 5 (strongly agree). Therefore, the participants believe that many of the topics should be taught to educable mentally handicapped students. Of the 36 sexuality education topics listed, only five received a mean score lower than a 3 (neutral). These included fantasy, sexual dysfunction, masturbation, shared sexual behavior, and sexuality and religion with means scores of 2.73, 2.81, 2.94, 2.97, and 2.98, respectively. Of these five topics, the first four lowest scoring topics are under the Sexual Behavior key concept.

Under the key concept Human Development, means of the topics ranged from 3.42 for "sexual identity" to 4.34 for "puberty." The average mean for the topics under this key concept was 4.03. Overall, participants believe it is important to teach topics under this key concept. Only two of the five topics in this key concept scored below a 4: "reproductive anatomy and physiology" with a mean score of 3.94, and "sexual identity and orientation" with a mean score of 3.42.

Under the key concept Relationships, means ranged from 4.34 for both "dating" and "marriage and lifetime commitment" to 4.67 for "families." All topics received a mean score of at least 4. This was the second highest scoring key concept with an average mean of 4.47. Participants believe that all topics should be taught.

Under the key concept Personal Skills, means ranged from 4.38 for "negotiation" to 4.72 for both "decision making" and "looking for help." With the average mean of 4.60 for the topics, participants rated this key concept to be the highest in importance of the six. All topics received a mean score of at least 4. Of the 36 topics, the two highest rated overall, "decision making" and "looking for help," fall under this key concept.

Under the concept Sexual Behavior, means ranged from 2.73 for "fantasy" to 4.10 for "abstinence." The topic "abstinence" was the only topic in this key concept to receive a mean score greater than a 4. The range in means between the topics in this key concept was the greatest. Also, with the average mean for the topics as 3.17, participants rated this concept to be the lowest in importance of the six. Four of the five lowest rated topics fall under this key concept: masturbation, shared sexual behavior, fantasy, and sexual dysfunction. Participants fall somewhere between "disagree" and "neutral" for teaching these lowest rated topics.

Under the key concept Sexual Health, means ranged from 3.42 for "abortion" to 4.51 for "sexually transmitted diseases and HIV." The average mean for the topics under this key concept was 4.18. Only one of the five topics under this key concept, "abortion," received a mean score of less than 4.

Finally, under the key concept Society and Culture, means ranged from 2.98 for "sexuality and religion" to 3.63 for "gender roles." This was the second lowest scoring key concepts with all of the eight topics included receiving a mean score lower than a 4. The average mean for the topics under this key concept was 3.34. Society and Culture was also the only concept to produce a very low standard deviation of .10.

Overall, the means of the six key concepts ranged from 3.17 for "Sexual Behavior" to 4.47 for "Relationships" with an average mean of 3.97. Table 4-2 presents the means and standard deviations of the 36 topics and the six key concepts.

Sexuality Education Topics Taught

Which sexuality education topics do Florida special education instructors teach to educable mentally handicapped students? To determine which sexuality education topics special education teachers teach to educable mentally handicapped students, descriptive statistics were conducted. Questions 44 through 79 listed the 36 sexuality topics arranged by the key concepts. Participants were instructed to report whether or not they teach each of the 36 topics listed by selecting "yes" or "no." "Yes" responses were scored as a "1" and "no" responses were scored as a "0." Percentages were calculated to determine how many teachers reported teaching each topic.

Only six topics were included by at least 75% of teachers in this study: families, friendship, values, decision-making, communication, assertiveness, and finding help. These topics come from the key concepts Relationships and Personal Skills. Only eight topics were included by at least 50% of the respondents. Of the 36 topics, 18 were included by less than one fourth of the teachers. It is interesting to note that less than 10% of the participants teach any of the topics under the key concept Sexual Behavior, except the topic "abstinence" in which 23.1% of participants report teaching. Table 4-3 presents the percent of teachers who reported teaching each topic and those who do not.

To determine if special education teachers teach sexuality education topics at all, question 43 asked the participants if they teach any amount of sexuality education topics to educable mentally handicapped students during the school year. They were instructed to select "yes" or "no." Of the 197 participants who answered this question, 87 (44.2%) selected "yes" and 110 (55.8%) selected "no." Many participants reported they are not teaching sexuality education at all; yet report teaching some of the topics included in sexuality education.

Professional Preparation

What professional preparation in sexuality education did Florida special education teachers receive? To examine what professional preparation Florida special education teachers have in sexuality education, descriptive statistics, including frequencies and percentages, were conducted on questions 81through 86, question 87. Participants were also asked to rate their professional preparation to teach sexuality education in question 88. Frequency, percentage, and an overall mean are presented.

Table 4-2. Descriptive Statistics Presenting the Beliefs Toward the Need for Teaching Sexuality Education to Educable Mentally Handicapped Students

Topic	n	Mean	Std. Dev.
Key Concept #1: Human Development	201	4.03	.83
Reproductive Anatomy & Physiology	199	3.94	1.04
Reproduction	199	4.17	.98
Puberty	201	4.34	.83
Body Image	198	4.25	.93
Sexual Identity and Orientation	200	3.42	1.37
Key Concept #2: Relationships	202	4.47	.65
Families	200	4.67	.55
Friendship	202	4.66	.56
Love	201	4.39	.84
Dating	200	4.34	.90
Marriage and Lifetime Commitments	201	4.34	.93
Raising Children	201	4.43	.87
Key Concept #3: Personal Skills	203	4.60	.53
Values	203	4.64	.66
Decision Making	203	4.72	.52
Communication	202	4.69	.55
Assertiveness	201	4.46	.75
Negotiation	201	4.38	.83
Looking for Help	202	4.72	.68
Key Concept #4: Sexual Behavior	200	3.17	.99
Sexuality Throughout the Lifespan	199	3.28	1.23
Masturbation	198	2.94	1.20
Shared Sexual Behavior	197	2.97	1.26
Abstinence	200	4.10	1.13
Human Sexual Response	197	3.29	1.20
Fantasy	199	2.73	1.15
Sexual Dysfunction	197	2.81	1.21

Topic	n	Mean	Std. Dev.
Key Concept #5: Sexual Health	200	4.18	.92
Contraception	200	4.31	1.14
Abortion	200	3.42	1.38
Sexually Transmitted Disease & HIV	200	4.51	.96
Sexual Abuse	199	4.40	.99
Reproductive Health	199	4.30	1.01
Key Concept #6: Society and Culture	198	3.34	.10
Sexuality and Society	185	3.54	1.17
Gender Roles	197	3.63	1.11
Sexuality and the Law	196	3.66	1.19
Sexuality and Religion	196	2.98	1.23
Diversity	195	3.27	1.19
Sexuality and the Arts	196	3.03	1.15
Sexuality and the Media	198	3.20	1.21

Table 4-3. Descriptive Statistics Presenting Which Sexuality Education Topics are Taught to Educable Mentally Handicapped Students by Percentage

Topic	n	Yes	No
Key Concept # 1: Human Development			
Reproductive Anatomy & Physiology	194	26.3	73.7
Reproduction	194	26.8	73.2
Puberty	194	31.4	68.6
Body Image	194	41.2	58.8
Sexual Identity and Orientation	194	15.5	84.5
Key Concept #2: Relationships			
Families	195	82.6	17.4
Friendship	195	84.1	15.9
Love	194	42.3	57.7
Dating	195	28.7	71.3
Marriage and Lifetime Commitments	195	27.2	72.8
Key Concept #3: Personal Skills			
Values	194	87.1	12.9
Decision Making	195	88.2	11.8
Communication	195	88.7	11.3
Assertiveness	195	70.3	29.7
Negotiation	195	65.1	34.9
Finding Help	194	79.4	20.6
Key Concept #4: Sexual Behavior			
Sexuality Throughout the Lifespan	194	7.7	92.3
Masturbation	194	5.2	94.8
Shared Sexual Behavior	195	6.7	93.3
Abstinence	195	23.1	76.9
Human Sexual Response	195	9.7	90.3
Fantasy	195	3.6	96.4
Sexual Dysfunction	195	3.1	96.9

Table 4-3--continued

Topic	n	Yes	No
Key Concept #5: Sexual Health			
Contraception	193	15.5	84.5
Abortion	193	7.8	92.9
Sexually Transmitted Disease & HIV	193	26.9	73.1
Sexual Response	192	28.1	71.9
Reproductive Health	192	18.8	81.3
Key Concept #6: Society and Culture			
Sexuality and Society	194	12.9	87.1
Gender Roles	194	23.7	76.3
Sexuality and the Law	194	12.4	87.6
Sexuality and Religion	193	4.1	95.9
Diversity	193	20.2	79.8
Sexuality and the Arts	192	5.2	94.8
Sexuality and the Media	193	11.4	88.6

Questions 81 through 86 each listed a professional preparation experience. Although 59.4% of the participants reported having had a college health course and 62.3% reported having had a college special education course providing some amount of sexuality education, the amount of time spent on sexuality education and the sexuality topics covered cannot be determined by this study. Participants were instructed to select "yes" or "no" to each experience they participated in that provided professional preparation in sexuality education. Table 4-4 presents the responses to these questions by displaying the percentage of respondents who selected "yes" and "no." Frequencies were also conducted on questions 81 through 85 to determine the percentage of participants who had multiple professional preparation experiences in sexuality

education. Of the 200 participants who answered these questions, 37 (18.5%) had experienced none, 42 (21.0%) had experienced one, 49 (24.5%) had experienced three, 25 (12.5%) had experienced four, and 10 (5.0%) had experienced all five.

Table 4-4. Descriptive Statistics Presenting Percentage of Professional Preparation Experiences in the Area of Sexuality Education

Educational Experience	Yes	No
Q81 College general health course	59.4	40.6
Q82 College sexuality education course	19.6	80.4
Q83 College special education course	62.3	37.7
Q84 Staff development program	38.9	61.1
Q85 Local, state, or national workshops	22.0	78.0
Q86 Other	9.0	91.0

More exclusively, question 87 asked participant whether or not their professional preparation specifically included teaching sexuality education to special education students. Of the participants who responded to this question, 7.1% (14) selected "yes," and 92.9% (182) selected "no." Most of the participants in this study did not receive professional preparation specifically to teach sexuality education.

Participants were also asked to rate their professional preparation to teach sexuality education in question 88. Response options ranged from 1 = Poor to 5 = Excellent. This shows that participants rated their professional preparation to teach sexuality education slightly over "below average." The overall mean was 2.22 with a standard deviation of 1.05. Table 4-5 presents the frequency and percentage to this question.

Table 4-5. Descriptive Statistics for Rating of Professional Preparation in the Area of Sexuality Education

Rating Response Option	Frequency	Percent
Poor (1)	60	31.9
Below Average (2)	50	26.6
Average (3)	56	29.8
Above Average (4)	20	10.6
Excellent (5)	2	1.1

When Sexuality Education Should Be Taught

When do Florida special education teachers believe sexuality education should be taught to educable mentally handicapped students? To examine when special education teachers believe educable mentally handicapped students should receive sexuality education, participants were asked to select "yes" or "no" for elementary school (Q 37), middle school (Q 38), and high school (Q39). When reviewing the data, it is apparent that teachers who believe educable mentally handicapped children should receive sexuality education in elementary school also believe they should receive it at both the middle school and high school levels. Almost all participants believe that sexuality education should be offered to students classified as educable mentally handicapped at both middle school and high school levels.

Frequency and percentage were conducted for each question. Table 4-6 presents the findings to this question.

Table 4-6. Descriptive Statistics Presenting When Florida Special Education Teachers Believe at Least Some Sexuality Education Should be Offered to Educable Mentally Handicapped Students

Educational Level	Yes	No
Q37 Elementary School	67.0	33.0
Q38 Middle School	96.0	4.0
Q39 High School	98.0	2.0

Beliefs Predicting Sexuality Education

Do the beliefs Florida special education teachers report about teaching sexuality education predict the sexuality education topics they teach? To examine whether beliefs predicts which sexuality topics are taught, a series of six simple regression models were estimated, one for each dependent variable. The independent variable was the belief toward the importance of teaching each key concept. This number was found by summing the total responses under each key concept. The dependent variable was the number of topics taught under each key concept. This number was found by summing the total "yes" responses under each key concept. The alpha level was Bonferoni adjusted by dividing the alpha level of .05 by six for the six key concepts. This produced a new alpha level of .008. Five of the six analyses were discovered to be statistically significant. Findings for regression analysis are presented in Tables 4-7 through 4 - 12.

Table 4-7. Regression Analysis Presenting Findings Among Beliefs and Instruction in Human Development

Key Concept	B	Std. Error	t	Sig.
Human Development	.127	.028	4.622	.000

The regression analysis on Human Development topics, presented in Table 4-7, produced an R square of .101 which is statistically significant; $F(1,df) = 21.361$, $p \geq .05$. Approximately 10% of the variance in the number of Human Development topics taught is associated with the beliefs in teaching Human Development. The regression coefficient is B = .127, which suggests for each unit change in beliefs, we can expect a .127 unit change in the number of Human Development topics taught.

Table 4-8. Regression Analysis Presenting Findings Among Beliefs and Instruction in Relationships

Key Concept	B	Std. Error	t	Sig.
Relationships	.065	.032	2.041	.043

This regression analysis was not significant at the .008 Bonferoni adjusted alpha level.

Table 4-9. Regression Analysis Presenting Findings Among Beliefs and Instruction in Personal Skills

Key Concept	B	Std. Error	t	Sig.
Personal Skills	.130	.036	3.636	.000

The regression analysis on Personal Skills topics, presented in Table 4-9, produced an R square of .064 which is statistically significant; $F(1,df) = 13.218$, $p \geq .05$. Approximately 6.4% of the variance in the number of Personal Skills topics taught is associated with the beliefs in teaching Personal Skills. The regression coefficient is B = .130, which suggests for each unit change in beliefs, we can expect a .130 unit change in the number of Personal Skills topics taught.

Table 4-10. Regression Analysis Presenting Findings Among Beliefs and Instruction in Sexual Behavior

Key Concept	B	Std. Error	t	Sig.
Sexual Behavior	.038	.014	2.840	.005

The regression analysis on Sexual Behavior topics, presented in Table 4-10, produced an R square of .041 which is statistically significant; $F(1,df) = 8.066$, $p \geq .05$. Approximately 4.1% of the variance in the number of Sexual Behavior topics taught is associated with the beliefs in teaching Sexual Behavior. The regression coefficient is B = .038, which suggests for each unit change in beliefs, we can expect a .038 unit change in the number of Sexual Behavior topics taught.

Table 4-11. Regression Analysis Presenting Findings Among Beliefs and Instruction in Sexual Health

Key Concept	B	Std. Error	t	Sig.
Sexual Health	.095	.024	4.051	.000

The regression analysis on Sexual Health topics, presented in Table 4-11, produced an R square of .080 which is statistically significant; $F(1,df) = 16.409$, $p \geq .05$. Approximately 8% of the variance in the number of Sexual Health topics taught is associated with the beliefs in teaching Sexual Health. The regression coefficient is B = .095, which suggests for each unit change in beliefs, we can expect a .095 unit change in the number of Sexual Health topics taught.

Table 4-12. Regression Analysis Presenting Findings Among Beliefs and Instruction in Society and Culture

Key Concept	B	Std. Error	t	Sig.
Society and Culture	.072	.016	4.677	.000

The regression analysis on Society and Culture topics, presented in Table 4-12, produced an R square of .105 which is statistically significant; $F(1,df) = 21.879$, $p \geq .05$. Approximately 10.5% of the variance in the number of Society and Culture topics taught is associated with the beliefs in teaching Sociey and Culture. The regression coefficient is B = .072, which suggests for each unit change in beliefs, we can expect a .072 unit change in the number of Soceity and Culture topics taught.

Results show that regression analyses conducted on the key concepts produced significant findings, except for the Relationships key concept. Therefore, the beliefs teachers hold regarding the need for sexuality education predict the sexuality education topics they teach in the key concepts Human Development, Personal Skills, Sexual Behavior, Sexual Health, and Society and Culture.

Professional Preparation and Beliefs

How does professional preparation in sexuality education affect the beliefs of Florida special education teachers about teaching sexuality? To determine if one's professional preparation affects their beliefs toward the importance of teaching sexuality, three series of six one-way ANOVAs were conducted; one series for each of the three independent variables. The independent variables were questions 81 (having a health course), 82 (having a sexuality education course), and a combination of both questions 81 and 82 (having both a health course and a sexuality course). The dependent variable was the beliefs regarding the need for sexuality education in each key concept. This score was derived by summing the total responses under each key concept. Type I error was protected by using the Bonferoni adjustment. The alpha level was adjusted by dividing the alpha level of .05 by six for the six key concepts. This produced a new alpha level of

.0008. Findings for six one-way ANOVAs are presented in Tables 4-13 through 4-15. None of the analysis conducted were found to be significant. These findings suggest that professional preparation among the participants in this study did not affect their beliefs toward the need for providing sexuality education.

Table 4-13. One-way ANOVA Presenting Findings Among Beliefs and Professional Preparation in a College General Health Course (Q81)

Key Concept	Source	df	Mean Squares	F	Sig.
Human Development	Between Groups	1	.297	.015	.903
	Within Groups	193	18.578		
	Total	194			
Relationships	Between Groups	1	2.041	.118	.732
	Within Groups	194	17.344		
	Total	195			
Personal Skills	Between Groups	1	0.007	0.001	0.98
	Within Groups	195	12.447		
	Total	196			
Sexual Behavior	Between Groups	1	28.476	.576	.449
	Within Groups	192	49.480		
	Total	193			
Sexual Health	Between Groups	1	1.608	.073	.787
	Within Groups	192	22.058		
	Total	193			
Society and Culture	Between Groups	1	7.363	.151	.698
	Within Groups	190	48.837		
	Total	191			

Findings from this analysis suggest that none of the six key concepts were statistically significant when examining whether having had a college level health course affected the beliefs toward the need of teaching sexuality education.

Table 4-14. One-way ANOVA Presenting Findings Among Beliefs and Professional Preparation in a College Sexuality Education Course (Q82)

Key Concept	Source	df	Mean Squares	F	Sig.
Human Development	Between Groups	1	.130	.007	.934
	Within Groups	195	18.786		
	Total	196			
Relationships	Between Groups	1	25.743	.1521	.219
	Within Groups	196	16.926		
	Total	197			
Personal Skills	Between Groups	1	1.472	.120	.730
	Within Groups	197	12.316		
	Total	198			
Sexual Behavior	Between Groups	1	24.768	.498	.481
	Within Groups	194	49.763		
	Total	195			
Sexual Health	Between Groups	1	5.271	.241	.624
	Within Groups	194	21.850		
	Total	195			
Society and Culture	Between Groups	1	9.473	.193	.661
	Within Groups	192	49.134		
	Total	193			

Findings from this analysis suggest that none of the six key concepts were statistically significant when examining whether having had a college sexuality education course affected the beliefs toward the need of teaching sexuality education.

Table 4-15. One-way ANOVA Presenting Findings Among Beliefs and Professional Preparation in both a College Health Course (Q81) and a College Sexuality Education Course (Q82)

Key Concept	Source	df	Mean Squares	F	Sig.
Human Development	Between Groups	2	16.440	.885	.415
	Within Groups	192	18.582		
	Total	193			
Relationships	Between Groups	2	22.548	1.321	.269
	Within Groups	192	17.069		
	Total	194			
Personal Skills	Between Groups	2	.931	.075	.928
	Within Groups	193	12.462		
	Total	195			
Sexual Behavior	Between Groups	2	32.688	.665	.516
	Within Groups	190	49.180		
	Total	192			
Sexual Health	Between Groups	2	29.027	1.320	.270
	Within Groups	190	21.989		
	Total	192			
Society and Culture	Between Groups	2	65.567	1.368	.257
	Within Groups	188	47.946		
	Total	190			

Findings from this analysis suggest that none of the six key concepts were statistically significant when examining whether having had both a college level health course and a sexuality education course affected the beliefs toward the need of teaching sexuality education.

Results suggest that having had a college health course, a sexuality education course, or a combination of the two does not affect participants' beliefs toward the need for sexuality education for educable mentally handicapped students.

Summary

This chapter presents the data collected by the methods described in Chapter 3 using a mailed, scan-tron, self-report instrument. The demographics and profile characteristics of the participants are presented and the findings of data analysis related to the research questions are reported. Findings suggest that participants believe many of the sexuality education topics listed should be taught to educable mentally handicapped students, however only a few topics are covered by a majority of the teachers. In general, participants have had little professional preparation to teach sexuality education and rate their preparation below average. More than half of the participants believe sexuality education should be provided in elementary school, and almost all believe it should be taught in both middle school and high school. Statistically significant findings in five of the six key concepts, all but Relationships, suggest that beliefs toward the need for providing sexuality education predict the topics taught. However, no statistically significant findings were discovered to determine whether professional preparation affects one's beliefs toward the need for sexuality education. Chapter 5 presents discussion, conclusions, and implications.

CHAPTER 5
DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study examined the beliefs of Florida special education teachers about teaching sexuality education to educable mentally handicapped, special education students. The researcher examined (a) Florida special education teachers' beliefs about the need for providing sexuality education to special education students classified as educable mentally handicapped, (b) the range of sexuality topics they teach, (c) their professional preparation in sexuality education, (d) when they believe sexuality education should be taught to special education students, (e) whether their beliefs about teaching sexuality education predict the sexuality topics included in instruction, and (f) whether their professional preparation affects their beliefs about teaching sexuality.

Participants in the study were all Florida special education teachers certified to teach educable mentally handicapped students. A complete list of possible participants and their home addresses was obtained from the Florida Department of Education. Using the total population (N = 988), participants were randomly assigned either to the pilot group (n = 494) or to the study group (n = 494).

The researcher developed an instrument based on an extensive review of the literature. Thirty-six sexuality education topics identified by SIECUS as defining comprehensive sexuality education were represented in the instrument. The 36 topics

were categorized by the six key concepts of sexuality education also identified by SIECUS. Participants were asked to indicate their beliefs toward the importance of teaching each topic and to report which of the topics they actually teach. They were also asked to respond to several questions regarding professional preparation, when they feel sexuality education should be taught, and demographics characteristics. The instrument was pilot tested in two phases: a review by a panel of three experts for content validity, and a pilot test for reliability of the instrument involving 494 participants through a mail survey. Using Cronbach's Alpha, the alpha level of the overall scale of the 36 topics was .9526.

Once the pilot test was completed, surveys were mailed to the 494 Florida special education teachers assigned to the study group. The survey methodology followed recommendations from *Mail and Internet Surveys: The Tailored Design Method, 2nd ed.* (Dillman, 2000). In the first mail out, contents included a personalized cover letter, the instrument, a scan-tron sheet, and a pre-addressed, postage-paid return envelope. Scan-trons were coded to identify who had returned the survey. Five days after the initial mailing, reminder post cards were sent. Ten days later, a follow-up letter including a new instrument, scan-tron sheet, and pre-addressed, postage paid envelope was sent to participants who had not responded. Data were electronically read and uploaded into the statistical program SPSS. Descriptive and inferential statistics were used to analyze the data.

Of the 203 participants, only 18.8% reported teaching in high school, 50% taught in elementary school, and 32.1% taught in middle school. Almost half (45.6%) of the teachers hold a master's degree, and over half (51.5%) have been teaching special education for over 12 years. When asked to rate the importance of teaching sexuality

education topics to educable mentally handicapped students on a scale of 1 (strongly disagree) to 5 (strongly agree), participants rated 20 of the 36 topics above a mean of at least 4. When considering topics by the six key concepts, participants rated the Personal Skills key concept as most important and the Sexual Behavior key concept as least important. However, when asked which topics they actually teach, only 6 topics were taught by at least 75% of the teachers. Yet, 44.2% (87) of participants reported teaching "at least some amount of sexuality education topics to educable mentally handicapped students" during the school year.

Descriptive statistics provided the following findings. When asked to report professional preparation specifically in sexuality education, only 7.1% (14) reported receiving preparation to teach sexuality education to special education students. Most participants 31.9%, (60) rated their professional preparation to teach sexuality as "Poor," 29.8% (56) rated their preparation as "Average," and 26.6% (50) rated their preparation as "Below Average." Only 10.6% (20) rated their preparation as "Above Average," and only 1.1% (2) rated their preparation as "Excellent." However, most participants (59.4%) reported completing a "college general health class," while only 19.6% reported completing a "college sexuality education course." Most of the participants believe sexuality education should be taught to educable mentally handicapped students. Over half (67.0%) of the participants believe it should be taught in elementary school, 96.0% believe it should be taught in middle school, and almost all (98.0%) believe it should be taught in high school.

When examining if beliefs toward the importance of teaching sexuality topics predicted the sexuality education topics actually taught, five of the six key concepts were statistically significant, all but the Relationship key concept. Regression analyses were

conducted to examine the statistically significant relationships. The beliefs for each key concept served as the independent variables, and the topics taught in each key concept served as the dependent variables. When examining if professional preparation affected the beliefs toward the importance of teaching sexuality education, no significance was found. Six one-way ANOVAs were conducted. Questions 81, 82, and a combination of questions 81 and 82 were the independent variables. The beliefs toward the importance of teaching sexuality topics were the dependent variables.

Discussion

Response Rate

The response rate for this study was 45%. Although a 45% response rate is 5 to15% lower than the 50 to 60% considered sufficient response rate for mailed surveys as recommended by Salant and Dillman(1994), several factors may account for the difference. First, Salant and Dillman (1994) suggest a response rate of 50 to 60% as sufficient when making four contacts with the participants. For this study, three contacts were made. One additional contact, such as a prenotification letter or a follow up telephone call, may have increased the response rate. Second, these researchers also suggest beginning with a sample size representing approximately 20-25% of the total population with a population size of approximately 1,000 allowing for a 5% sampling error (Salant & Dillman, p. 55, 1994). For this study (N = 988), 50% of the total population was included (n = 494), which greatly surpasses the recommended 20-25% (n = 198-247) for this population size. As a result of this large, representative sample, the 45% response rate represents over 20% of the total population. Information from the

web site http://dir.yahoo.com/Regional/U_S_States/Florida/Counties, confirmed that at least one teacher from each Florida county was represented in this sample.

Third, the response rate of 45% may be due to the nature and sensitivity of the topics: sexuality education and special education. In a similar study, Foley and Dudzinski (1995) sent 300 mailed surveys to randomly selected special education teachers containing only 30 questions assessing the adequacy of their professional preparation and level of competence to teach sexuality education. Foley and Dudzinski obtained a response rate of 46.8% using an instrument 1/3 the length of the instrument used in this study.

For this study, several methods were implemented to encourage participation and to increase response rates as suggested by Dillman (2000) and King, Pealer, and Bernard (2001). These methods included personalization of all outgoing envelopes, cover letters, and return envelopes using a person's name and home address, evidence of university sponsorship by using University of Florida letterhead, use of commemorative first class postage, an instrument printed on colored paper, a strong assurance of confidentiality, and a personalized signature using a colored ballpoint pen. As Dillman (2000) and King, Pealer, and Bernard (2001) suggest, use of a monetary incentive and a briefer survey may have increased the response rate for this study.

Demographics

When examining the descriptive statistics, it is important to note that the majority of participants in this study, 50% (95), teach elementary school. Only 32.1% (60) teach middle school, and even less, 18.8% (35), teach high school. Findings from this study may have changed if most participants taught middle school or high school. In a 1992

study involving interviews with 22 secondary special education teachers, 20 participants believed teaching sexuality education was important by saying "it may be the most important part of the curriculum for secondary students" (Brantlinger, 1992, p. 35). Since half of the participants in this study were elementary teachers, findings from a study involving primarily high school teachers may show different or stronger beliefs toward the need for teaching sexuality education and a potential increase in the number of sexuality education topics taught.

Almost half of the teachers in this study, 45.6% (88), hold a master's degree; however, findings from this study did not determine in what areas participants received this degree. More than half, 51% (104), had taught special education for 12 or more years, so many teachers had much experience in the field working with special education students.

Teachers' Beliefs Regarding Need

When examining Florida special education teachers' beliefs toward the need for providing sexuality education to educable mentally handicapped students, 20 of the 36 sexuality education topics received a mean score of at least 4 (agree) on a 5-point scale. Because teachers rated each topic on a scale of 1 (strongly disagree) to 5 (strongly agree), this finding suggests that teachers at least "agree" that 20 of the topics need to be taught to this population of students.

Of the 36 sexuality education topics identified by SIECUS, special education teachers in this study believe the five most necessary topics to teach to educable mentally handicapped students to be decision making, looking for help, communication, families, and friendships. These five topics received means of 4.72, 4.72, 4.69, 4.67, and 4.66,

respectively. The three topics receiving the highest mean ratings, decision making, looking for help, and communication occur in the Personal Skills key concept. This key concept, with an overall mean score of 4.60, was rated as most important to teach educable mentally handicapped students. The following top-rated topics, families and friendships, occur in the Relationships key concept. With a mean score of 4.47, this key concept was rated the second most necessary key concept to teach.

The literature supports special education teachers in this study in their beliefs that these topics represent the most necessary topics to teach special education students. Through interviews with 22 special education teachers, Brantlinger (1992) determined that the greatest rationale supporting sexuality education, as reported by these teachers, involved the perception that students were unwittingly engaging in potentially dangerous sexual behaviors. The 22 teachers believed sexuality education would reduce these students' vulnerability to abuse. Sobsey (1994) found that the factors most commonly believed to increase vulnerability of people with mental handicaps to sexual assault included lack of assertiveness, too much compliance, and communication difficulties. In this study, the key concept of Personal Skills was rated the highest. Topics included in this key concept, such as communication, decision-making, and looking for help and assertiveness, are related to reducing one's vulnerability and to improving skills to protect oneself. All topics in this key concept received a mean score of at least 4.38, indicating participants at least "agree" that these topics should be taught to educable mentally handicapped students.

Brantlinger (1992) also reported that 21 of 22 teachers interviewed reported that thorough and accurate sexuality education might reduce problems with sexuality and intimate relationships. These findings are consistent with the key concept rated second

most necessary to teach in this study, Relationships. The topics families and friendships in this key concept were rated as the 4th and 5th most necessary topics to teach, respectively. Other topics in this key concept, love, dating, marriage and lifetime commitments, and raising children, received a mean score of at least 4.34, indicating participants at least "agree" that these topics should be taught to educable mentally handicapped students.

In this study, teachers rated the key concept of Sexual Behavior as least necessary to teach to educable mentally handicapped students. This key concept received a mean score of 3.17, or slightly over "neutral," with means of individual topics ranging from 2.73 for fantasy to 4.10 for abstinence. The range of scores from the 6 key concepts was greatest for sexual behavior. Topics under the key concept Sexual Behavior, such as masturbation, human sexual response, and shared sexual behavior may elicit more personal values and moral perspectives than basic biological aspects of sexuality and protection.

As the literature suggests, some individuals may not view educable mentally handicapped children as sexual beings needing information on sexual behavior, or they may feel this information could promote sexual expression. This finding may explain why some special education teachers in this study rated the Sexual Behavior key concept lower than other concepts. McCabe, Cummins, and Deeks (1999) suggested that the lack of assessment instruments to evaluate sexuality of mentally disabled individuals exemplifies the difficulties that many people face in accepting and valuing their sexuality. However, studies document that people with mental handicaps are sexual beings capable of engaging in sexual behavior (Ruble & Dalrymple, 1993; Ousley & Mesibov, 1991). Duh (1999) and Kempton and Kahn (1991) document that public

attitudes toward the sexuality of people with mental handicaps are improving. As attitudes improve, we may see more positive beliefs from teachers toward inclusion of sexual behavior topics in curricula.

Sexuality Education Topics Taught

Of the 36 sexuality education topics identified by SIECUS, only six topics were included in classroom instruction by 75% of the participants. Only eight topics were included by 50% of the participants. Overall, special educators reported not teaching many of the sexuality topics recommended to be included in comprehensive sexuality education.

When comparing this study to similar studies evaluating sexuality curriculuma, and coverage of the 36 sexuality education topics, similarities exist. Findings from this study suggest that the key concepts of Sexual Behavior and Society and Culture were least likely to be taught. These findings are similar to the SIECUS (1993) review of state sexuality education curricula and guidelines, which found that topics related to sexual behavior and to society and culture ranked among those least frequently included. The results also agree with the Kantor (1993) review of 11 fear-based curricula, and the Klein, Goodson, Serrins, Edmundson, and Evans (1994) analysis of nine nationally available curricula. Both of these studies also identified topics in the key concepts of Sexual Behavior and Society and Culture as the most inadequately covered topics. More recently, Yarber, Torabi, and Hafner (1997) produced the same findings in an Indiana study of 7-10th grade health science teachers who reported teaching these topics the least. Yarber and McCabe (1984) reported similar results over 15 years ago.

The lower rate of inclusion for the Sexual Behavior topics and the Society and Culture topics may have several explanations. When examining reported beliefs of teachers toward the need for teaching sexuality topics, overall means of topics in these two key concepts rated the lowest. Besides being considered the least important topics, some teachers may not have felt competent to teach in those areas, although this study did not address competence. The lower rate of inclusion for the Sexual Behavior topics may indicate some teachers do not view educable mentally handicapped children as sexual beings needing such information, or they may believe this type of information could promote sexual expression. As McCabe, Cummins, and Deeks (1999) suggest, many people still do not view mentally handicapped people as sexual beings. Topics under the key concept of Sexual Behavior, such as masturbation, human sexual response, and shared sexual behavior, may elicit more personal values and moral perspectives than the basic biological aspects of sexuality and protection. Although not a part of this study, lack of administrative or parental support also may determine which sexuality education topics are taught.

Although findings regarding the least-taught topics in this study were congruent with the similar studies mentioned above, differences exist in which topics were covered the most. Findings from this study suggest topics in the key concept of Personal Skills were covered most frequently, followed by topics in Relationships. Similar studies including SIECUS (1993), Klein et al. (1994), Kantor (1993), Yarber et al. (1997), and Yarber and McCabe (1984) indicated topics in the key concept of Human Development were covered most frequently by their participants. However, participants in these studies were not special education teachers, whereas participants in this study were special education teachers.

Teachers of educable mentally handicapped students appear to place more importance on topics such as finding help, assertiveness, communication, and friendship than on Human Development topics such as reproduction, body image, and anatomy. Several factors may explain why these topics were included more frequently in instruction by special education teachers. Topics in the key concepts of Personal Skills and Relationships, covered most frequently by participants in this study, may be considered as the more traditional and least controversial topics in sexuality education. They focus more on developing one's personal skills in decision making and finding help or on one's ability to form healthy relationships with families and friends. Participants in this study also rated these key concepts as most important when rating their beliefs toward the need for teaching sexuality topics.

Only 44.2% (87) of participants in this study reported teaching any sexuality education topics to educable mentally handicapped students during the school year; yet, at least 75% reported teaching six topics, and at least 50% reported teaching eight. These results imply that many teachers are teaching sexuality education topics, but they do not consider these topics as part of sexuality education. This finding may be explained by the limited amount of professional preparation in sexuality education. Only 19.6% of participants reported completing a sexuality education course, and only 7.1% (14) reported completing any professional preparation that specifically included teaching sexuality education to special education students. Therefore, participants may not fully understand of the scope of sexuality education.

Professional Preparation

Results from this study suggest special education teachers receive limited professional preparation to teach sexuality education to special education students.

When asked if their professional preparation specifically included teaching sexuality education to special education students, only 14 (7.1%) selected "yes." Most participants in this study believe their professional preparation programs did not provide training in this area.

When asked to rate their professional preparation to teach sexuality education, the overall mean was 2.22 on a scale of 1 = Poor to 5 = Excellent. On average, participants rated their professional preparation in this subject as slightly above "Below Average." In a similar study, Foley and Dudzinski (1995) found that high school special education teachers reported receiving minimal instruction to teach sexuality education. Less than one-third of participants in the study rated their professional preparation in the area of sexuality as adequate for 10 of 12 sexuality education competencies listed.

When reviewing professional preparation experiences in sexuality education for participants in this study, more than half completed a college health course (59.4%), but the amount of time spent teaching sexuality and the actual topics covered cannot be determined. As Brantlinger (1992) documents, most instruction in sexuality education does not include a separate sexuality education course, but a unit in a larger course, such as a personal health course. Thus, it is difficult to determine the nature and scope of sexuality education actually received. In another study, May, Kundert, and Akpan (1994) surveyed chairpersons of 185 special education training programs to determine the level of professional preparation offered in the area of sexuality education. Although 61% of respondents reported some preparation in seuality education for their college students, most courses either were electives or a few hours of coverage within other courses. Reported classroom time actually spent on sexuality education varied from 45 minutes to 15 hours per course, with an average of 4.5 hours.

Other professional preparation experiences in sexuality education reported in this study included completing a sexuality education course; a special education course that included sexuality education; a staff development program on sexuality education; or a local, state, or national workshop on sexuality education. Only 19.6% of participants reported completing a sexuality education course, yet 62.3% reported completing a college special education course providing an experience in the area of sexuality education. Approximately one-third of participants (38.9%) reported attending a staff development program in sexuality education, and 22.0% reported attending a local, state, or national workshop. The actual amount of professional preparation received remains unclear because special educators may have received training in an elective sexuality education course, as part of another course, or through a workshop or staff development program.

Findings from this study regarding preservice training are consistent with related studies. As Brantlinger (1992) noted in an interview with 22 special education teachers, only nine reported any form of sexuality education in their preservice preparation. Seven participants reported a small amount of preservice coverage, such as one or two class sessions in a course, and four of these seven participants reported only "very little" or "bits and pieces" of instruction (Brantlinger, 1992, p. 34). In a related study, Justice (1996) discovered that only five of 18 respondents reported studying "family life" education topics in their preservice programs. Eight reported receiving additional training through workshops or in-service training on sexuality education for exceptional students.

Each college or university in Florida must follow state mandates for professional preparation of special education in preservice programs, yet all institutions can design

their own curriculum requirements for certification in special education. With such flexibility in preservice coursework, it is difficult to determine the amount of education teachers received in human sexuality education.

Special education teachers also may use a variety of information sources to supplement their lack of professional preparation in sexuality education. Potential information sources include newspapers, television programs, colleagues, personal experience, or self-help books. Results from an unstructured approach to the attainment of information may be questionable because teachers may learn inaccurate information.

When Sexuality Education Should Be Taught

Results from this study suggest that almost all special education teachers believe that at least some sexuality education should be taught at both the middle school and high school levels. More than half, 67%, believe it also should be taught at the elementary school level. Although the scope of this study does not determine which topics should be taught at each level, most teachers believe sexuality education should be part of the curriculum for educable mentally handicapped students. Brantlinger (1992) documented that 20 of 22 special education teachers interviewed believed teaching sexuality education may be the "most important part of the curriculum for secondary students," (p. 35).

Beliefs Predicting Sexuality Education Taught

When examining whether beliefs about the need for providing sexuality education predict the sexuality education topics actually taught, the key concept of Relationships was the only concept not statistically significant at the Bonferoni adjusted alpha level of .008. When examining participants' beliefs about the need for teaching topics in this key

concept, the mean score was 4.47. Individual means for topics in this key concept ranged from 4.67 for families to 4.34 for both dating and for marriage and lifetime commitment. The range of scores when reporting beliefs about the need for teaching topics in this key construct was very small. Therefore, when the independent variable was found by summing the total responses, little variation existed. However, this key concept recorded the largest range in percentage of teachers who reported teaching topics included in this key concept. Although 84.1% of teachers reported teaching friendship, only 27.2% reported teaching marriage and lifetime commitments. Many teachers reported teaching families and friendships, yet few reported teaching dating and marriage and lifetime commitment. Therefore, when the dependent variable was found by summing the total "yes" responses, much variation existed. Teachers taught in this key concept, yet not equally among the topics. Diversity in teaching the various topics in the key concept of Relationships may explain why this finding was not statistically significant.

All other key concepts were found to be statistically significant when examining whether beliefs about the need for teaching sexuality education topics predict the sexuality education topics actually taught. It appears that topics believed to be most important to teach are in fact the topics actually taught most frequently. However, school boards in the various districts may influence inclusion of topics, making it difficult to determine which topics the different school boards require. In Florida, required courses at the secondary level include both Health and Safety, and Life Management and Transition (Florida Department of Education, 2000). These two requirements would be the most likely places where special education teachers could cover sexuality education. However, no specific topics to be included or time requirements for certain topics are specified. Local school boards have the flexibility to determine their own requirements.

Individuals' personal beliefs are an important factor determining what sexuality education is actually taught.

Professional Preparation Predicting Beliefs

When examining the relationship between professional preparation and personal beliefs teachers hold regarding the need for sexuality education, findings from six, one-way ANOVAs detected no relationship. The independent variables of completing a college health course, a college sexuality course, or a combination of both a college health course and a college sexuality course, did not affect the dependent variables, the beliefs of participants in each key concept. One would expect that professional preparation in sexuality education would strengthen one's beliefs about the need for teaching sexuality education.

Findings from this study differed with findings from a similar study conducted with nonspecial education teachers. Yarber, Torabi, and Hafner (1997) found that, in general, nonspecial education teachers with professional preparation in sexuality education were more likely to give higher importance ratings to the key concepts of Sexual Behavior and Sexual Health than were teachers without such academic preparation. However, teachers in this study by Yarber, Torabi, and Hafner (1997) taught at the high school level while 67% of participants in this study taught at teh elementary school level. Therefore, participants in this study may not feel students at the elementary school level need instruction on topics such as shared sexual behavior, sexual response, contraception, and sexually transmitted disease. A study including high school special education teachers may have produced findings similar to Yarber, Torabi, and Hafner (1997). Nonsignificant findings from this study also may reflect the fact that

most special education realize the vulnerability to sexual abuse and exploitation that special education students face regardless of the professional preparation of their teachers in sexuality education.

Conclusions and Recommendations

Findings from this study confirmed that most Florida special education teachers believe it important to teach many of the sexuality education topics identified by SIECUS to educable mentally handicapped students. They believe the most important topics occur in the key concepts of Personal Skills and Relationships. As the Florida Department of Education (2000) documents, both a Life Management and Transition course and a Health and Safety course are required courses for special education students at the secondary level. Since teachers hold strong beliefs that sexuality education should become part of the curriculum, sexuality education topics could be included in either or both of these required courses.

Since only 6 of the 36 sexuality topics are covered by 75% of participants in this study, most educable mentally handicapped student in Florida public schools do not receive adequate sexuality education. Since special education teachers already consider it important to teach sexuality education, other potential influences on the sexuality curriculum, such as administrative support, resources, and parental support, should be examined in future studies. For example, Brantlinger (1992) found lack of administrative support as the greatest impediment to teaching sexuality education by special education teachers.

At least 75% of special education teachers report teaching several sexuality education topics, but less than half consider themselves to be teaching sexuality

education. Future research should continue to address teachers' knowledge in the area of sexuality education to determine their familiarity with the scope of topics in this area. More professional preparation in the area of sexuality education can assist special education teachers in more fully understanding the multitude of topics that comprise sexuality education.

Most respondents in this study do not feel their professional preparation in sexuality education is adequate. A separate methods course in sexuality education, similar to methods courses offered in reading or math, may benefit special education teachers. Since most special education teachers believe it important to teach sexuality education, and many already teach a few of the topics included in sexuality education, at least a one or two-day workshop should be required. Although many teachers reported professional preparation experiences that addressed sexuality education, the amount of time spent and actual topics covered should be studied in detail. Further research should examine the nature and extent of professional preparation that special education teachers receive in sexuality education.

In terms of when special education teachers believe sexuality education should be offered, almost all special education teachers in this study believe it should be offered at both the middle school and high school levels. A majority (67%) also believe it should be offered at the elementary school level. Since half of the participants in this study teach elementary school, additional studies should include a stratified sample with equal representation of teachers at the three teaching levels: elementary school, middle school, and high school. Findings may differ based on teaching levels.

Teachers' beliefs had a significant effect on what was actually taught in the classes in this study. Little research has examined this relationship. Future research

should be conducted addressing special education teachers' levels of comfort in teaching sexuality education. Although not examined in this study, comfort level may influence both the beliefs teachers hold toward the need for providing sexuality education and the sexuality education topics they instruct. Foley and Dudzinski (1995) reported that special education teachers' attitudes and comfort levels discussing sexuality topics influenced their interest in teaching sexuality education. Individuals with higher levels of comfort, and a more positive attitude, tend to continue teaching sexuality courses longer and to include a broader range of topics in the curriculum.

Professional preparation of participants in this study did not affect their beliefs about the need for teaching sexuality education, but more extensive professional preparation may affect one's comfort level and capability in the classroom to present accurate information. This result in turn may affect their beliefs and the topics they actually teach. Future research should seek to identify other factors that influence special education teachers' beliefs about the need for providing sexuality education and whether or not professional preparation affects the topics actually taught.

This study provided important baseline information on sexuality education in Florida, but some limitations should be noted. This exploratory study did not determine if specific content related to each of the 36 topics was taught. The quality of that instruction also remains unknown because the content of lessons was not addressed in this study. Another limitation of this study involves generalizability. Findings from this study cannot be generalized to other states or regions of the country, because only Florida special education teachers participated. Further research should be conducted in other states or at the national level to assess differences in implementation among states that support, do not take a position on, or discourage sexuality education.

From a methodological standpoint, adding a qualitative component to future research with special education teachers regarding sexuality education could prove beneficial. Individual interviews or focus groups would provide in-depth information about beliefs special education teachers hold regarding sexuality education for special education students, the amount of sexuality content taught in each topic, and when certain topics should be taught to different educational levels of students. Qualitative research also would provide a deeper understanding of what teachers need to provide adequate, comprehensive sexuality education to special education students.

APPENDIX A
UNIVERSITY OF FLORIDA INSTITUTIONAL REVIEW BOARD

1. **TITLE OF PROJECT:** Exceptional Students and Sexuality Education: Teachers' Beliefs, Professional Preparation, and Practices.

2. **PRINCIPAL INVESTIGATOR:**
Elissa M. Howard, Doctor of Philosophy in Health Science Education, Ph.D. Candidate, Department of Health Science Education
4000 NW 51st Street Apt. B-38
Gainesville, FL 32606
Tel: (352)335-9890
ehoward@ufl.edu

3. **SUPERVISOR:**
Dr. Barbara Rienzo
Department of Health Science Education
FLG-5
PO Box 118210
Gainesville, FL 32601-8210
Tel: (352) 392-0583 ext 1289,
Fax: (352) 392-1909
brienzo@hhp.ufl.edu

4. **DATES OF PROPOSED PROJECT:** February, 2001 – June, 2001

5. **SOURSE OF FUNDING FOR THE PROJECT:** Elissa Howard (researcher)

6. **SCIENTIFIC PURPOSE OF THE INVESTIGATION:**

This study will examine the beliefs of Florida special education teachers about teaching sexuality education to educable mentally handicapped, special education students. The study will determine (1) Florida special education teachers' beliefs about the need for providing sexuality education to special education students classified as educable mentally handicapped, (2) the range of sexuality topics they teach, (3) their professional preparation in sexuality education, (4) when they believe sexuality education should be taught to special education students, (5) whether their beliefs about teaching sexuality education predict the sexuality topics included in instruction, and (6) whether their professional preparation affects their beliefs about teaching sexuality.

7. **DESCRIBE THE RESEARCH METHODOLOGY IN NONTECHNICAL LANGUAGE:**

Special education teachers certified to teach educable mentally handicapped students in Florida will be surveyed by mail. The survey will be developed by the researcher and will undergo a pilot study to establish reliability. Completion of the survey should take no longer than 20 minutes. Surveys will first be sent to 500 participants asking for their participation in a pilot study. They will be sent a cover letter, a copy of the survey, a scan tron to record their responses, and a post-marked self addressed return envelope.

Results of the pilot study will undergo a factor analysis. This will be done to determine whether responses to questions 1-36 will be treated as individual items or be treated as six categories in the final study. Questions will not change from the pilot study to the final study.

Once the pilot study has been completed, another 500 participants for the final study will be sent a cover letter asking for their participation, a copy of the survey, a scan tron to record their answers, and a post-marked self addressed return envelope. Surveys will be coded numerically to identify who has not returned the survey. Participants will be instructed to not put their name on the survey. Five days after the initial mailing, a reminder post card will be sent to all participants. Ten days later, participants who have not returned the initial survey will be sent another cover letter asking for their participation, a survey, and a self-address return envelop. Participation is voluntary and participants will remain confidential.

8. POTENTIAL BENEFITS AND ANTICIPATED RISKS:

Participants will be offered a copy of the results if they would like. There is no risk anticipated for the participants.

9. DESCRIBE HOW PARTICIPANTS WILL BE RECRUITED, THE NUMBER AND AGE OF THE PARTICIPANTS, AND PROPOSED COMPENSATION (IF ANY):

Participants will be recruited through obtaining a randomized list of special education teachers certified to teach educable mentally handicapped students from the Florida Department of Education. Five hundred participants for the pilot test and 500 participants for the actual study will be invited to participate. Since certified special education teachers are required to hold a Bachelor's degree, participants will be over the age of 21. No compensation will be awarded for participation. However, participants will be offered a copy of the results once the project is completed.

10. DESCRIBE THE INFORMED CONSENT PROCESS. INCLUDE A COPY OF THE INFORMED CONSENT DOCUMENT.

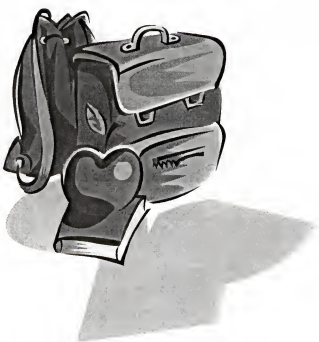
The participants will participate on a voluntary basis. They will be sent a cover letter (see attached) explaining the project and asking for their participation.

_____
Principal Investigator's Signature

_____
Supervisor's Signature

APPENDIX B
SURVEY INSTRUMENT

A Statewide Survey of Special Education Teachers Certified to Teach Students Classified as Educable Mentally Handicapped



Elissa Howard, M.S.
Project Director
University of Florida
Department of Health Science Education
Room 5, FLG
Gainesville, Florida 32611-8210

UNIVERSITY OF
FLORIDA

This survey assesses your beliefs, professional preparation, and practices regarding sexuality education for students identified as educable mentally handicapped (EMH). Please answer all questions by bubbling in your selection on the scan-tron sheet provided. Please use a number 2 pencil, and **select only one answer for each question.** If you do not wish to answer a question, then skip to the next question. Please return the survey and scan-tron in the envelope provided.

If you wish to comment on a question or to qualify your answers, please write your comments in the margins. Your comments will be read and taken into account. Thank you for your help.

Questions 1-36 list topics that could be included in a sexuality education program. These topics are categorized into 6 key concepts.
Please indicate **your beliefs** about the importance of teaching each topic to students classified as educable mentally handicapped by selecting one response.

Response Key:

Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

I BELIEVE IT IS IMPORTANT TO TEACH ABOUT...

		SD	D	N	A	SA
	Human Development					
1.	REPRODUCTIVE ANATOMY AND PHYSIOLOGY	1	2	3	4	5
2.	REPRODUCTION.....	1	2	3	4	5
3.	PUBERTY.....	1	2	3	4	5
4.	BODY IMAGE.....	1	2	3	4	5
5.	SEXUAL IDENTITY AND ORIENTATION..... (including homosexuality)	1	2	3	4	5
	Relationships					
6.	FAMILIES.....	1	2	3	4	5
7.	FRIENDSHIP.....	1	2	3	4	5
8.	LOVE.....	1	2	3	4	5
9.	DATING.....	1	2	3	4	5
10.	MARRIAGE AND LIFETIME COMMITMENTS.....	1	2	3	4	5
11.	RAISING CHILDREN.....	1	2	3	4	5
	Personal Skills					
12.	VALUES.....	1	2	3	4	5
13.	DECISION MAKING.....	1	2	3	4	5
14.	COMMUNICATION.....	1	2	3	4	5
15.	ASSERTIVENESS.....	1	2	3	4	5
16.	NEGOTIATION.....	1	2	3	4	5
17.	LOOKING FOR HELP.....	1	2	3	4	5

		SD	D	N	A	SA
Sexual Behavior						
18.	SEXUALITY THROUGHOUT THE LIFESPAN.....	1	2	3	4	5
19.	MASTURBATION.....	1	2	3	4	5
20.	SHARED SEXUAL BEHAVIOR.....	1	2	3	4	5
21.	ABSTINENCE.....	1	2	3	4	5
22.	HUMAN SEXUAL RESPONSE.....	1	2	3	4	5
23.	FANTASY.....	1	2	3	4	5
24.	SEXUAL DYSFUNCTION.....	1	2	3	4	5
Sexual Health						
25.	CONTRACEPTION.....	1	2	3	4	5
26.	ABORTION.....	1	2	3	4	5
27.	SEXUALLY TRANSMITTED DISEASE AND HIV INFECTION.....	1	2	3	4	5
28.	SEXUAL ABUSE.....	1	2	3	4	5
29.	REPRODUCTIVE HEALTH.....	1	2	3	4	5
Society and Culture						
30.	SEXUALITY AND SOCIETY.....	1	2	3	4	5
31.	GENDER ROLES.....	1	2	3	4	5
32.	SEXUALITY AND THE LAW.....	1	2	3	4	5
33.	SEXUALITY AND RELIGION.....	1	2	3	4	5
34.	DIVERSITY.....	1	2	3	4	5
35.	SEXUALITY AND THE ARTS.....	1	2	3	4	5
36.	SEXUALITY AND THE MEDIA.....	1	2	3	4	5

For questions 37-39, please indicate if you believe at least some sexuality education should be offered to students identified as "educable mentally handicapped" at the levels listed.

		YES	NO
37.	Elementary School	1	2
38.	Middle School	1	2
39.	High School	1	2

For questions 40-42, please indicate if you believe at least some sexuality education should be offered to students *without disabilities* at the levels listed.

		YES	NO
40.	Elementary School	1	2
41.	Middle School	1	2
42.	High School	1	2

This section asks about your current classroom **teaching practices** in the area of sexuality education.

43. Do you teach any amount of sexuality education topics to students identified as "educable mentally handicapped" during the school year?

1. Yes (Go to Q44) 2. No (Go to Q80)

For Questions 44-79, please indicate if you teach the following topics at all to students identified as "educable mentally handicapped" during the school year.

		YES	NO
	Human Development		
44.	REPRODUCTIVE ANATOMY AND PHYSIOLOGY	1	2
45.	REPRODUCTION	1	2
46.	PUBERTY	1	2
47.	BODY IMAGE	1	2
48.	SEXUAL IDENTITY AND ORIENTATION	1	2
	Relationships		
49.	FAMILIES	1	2
50.	FRIENDSHIP	1	2
51.	LOVE	1	2
52.	DATING	1	2
53.	MARRIAGE AND LIFETIME COMMITMENTS	1	2
54.	PARENTING	1	2
	Personal Skills		
55.	VALUES	1	2
56.	DECISION MAKING	1	2
57.	COMMUNICATION	1	2
58.	ASSERTIVENESS	1	2
59.	NEGOTIATION	1	2
60.	FINDING HELP	1	2
	Sexual Behavior		
61.	SEXUALITY THROUGHOUT THE LIFESPAN	1	2
62.	MASTURBATION	1	2
63.	SHARED SEXUAL BEHAVIOR	1	2
64.	ABSTINENCE	1	2
65.	HUMAN SEXUAL RESPONSE	1	2
66.	FANTASY	1	2
67.	SEXUAL DYSFUNCTION	1	2

	Sexual Health	YES	NO
68.	CONTRACEPTION	1	2
69.	ABORTION	1	2
70.	SEXUALLY TRANSMITTED DISEASE AND HIV INFECTION	1	2
71.	SEXUAL ABUSE	1	2
72.	REPRODUCTIVE HEALTH	1	2
	Society and Culture		
73.	SEXUALITY AND SOCIETY	1	2
74.	GENDER ROLES	1	2
75.	SEXUALITY AND THE LAW	1	2
76.	SEXUALITY AND RELIGION	1	2
77.	DIVERSITY	1	2
78.	SEXUALITY AND THE ARTS	1	2
79.	SEXUALITY AND THE MEDIA	1	2

The final questions ask about your **professional background**.

80. How many years have you taught special education?

1. 0-2 years
2. 3-5 years
3. 6-8 years
4. 9-11 years
5. 12 or more years

For questions 81-86, please indicate if you have had the following professional preparation to teach sexuality education.

		YES	NO
81.	College general health course.....	1	2
82.	College sexuality education course.....	1	2
83.	College special education course.....	1	2
84.	Staff development programs provided by my school or district...	1	2
85.	Local, state, or national workshops/conferences.....	1	2
86.	Other(s): **Please specify**: _____	1	2

87. Did your professional preparation specifically include teaching sexuality education to special education students?

1. Yes 2. No

88. How would you rate your professional preparation to teach sexuality education?

1. Poor 2. Below Average 3. Average 4. Above average 5. Excellent

89. How would you rate your personal comfort level in teaching sexuality education?

1. Poor 2. Below Average 3. Average 4. Above average 5. Excellent

90. What is the highest degree that you have received?

1. Bachelor's Degree 2. Master's Degree 3. Specialist Degree 4. Doctor's Degree

For questions 91-93, please indicate if you are you currently teaching at the following levels of special education?

		YES	NO
91.	Elementary school	1	2
92.	Middle school	1	2
93.	High school	1	2

94. What is your gender?

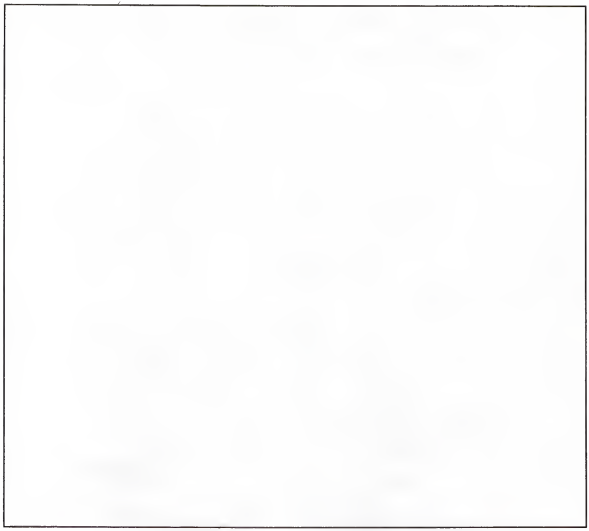
1. Male 2. Female

95. What is your age?

1. 20-29
2. 30-39
3. 40-49
4. 50-59
5. 60 and over

Please turn to the back page

In the space below, please feel free to include any comments or additional information you feel might be useful in this study.



Thank you for your time and assistance with this survey.

If you would like a copy of the results, please print your name and address on a separate slip of paper and return it with the survey and scan-tron. **Please do not write this information on the survey itself in order to maintain confidentiality.**

APPENDIX C
EXPERT PANEL REVIEW MEMBERS

1. Dr. Scott Modell, Ph.D.
   California State University, Sacramento
   Department of Kinesiology
   6000 J Street
   Sacramento, California 95819-6073

2. Dr. Darell Lang, Ph.D.
   Kansas State Department of Education
   120 S.E. 10th Ave.
   Topeka, Kansas 66612-1182

3. Donna Bernert
   34 Sasamac Road
   Carbondale, IL 62901

APPENDIX D
EXPERT PANEL COVER LETTER

(On University of Florida, Department of Health Science Education letterhead paper.)

January XX, 2001

Dear Colleague:

You have been identified as an expert in the area of sexuality education and special education. I am requesting that you serve on a Panel of Experts to review an instrument developed to examine the beliefs of Florida special education teachers toward sexuality education.

The purpose of this instrument is to determine: (1) Florida special education teachers' beliefs about the need for providing sexuality education to special education students classified as educable mentally handicapped, (2) the range of sexuality topics they teach, (3) their professional preparation in sexuality education, (4) when they believe sexuality education should be taught to special education students, (5) whether their beliefs about teaching sexuality education predict the sexuality topics included in instruction, and (6) whether their professional preparation affects their beliefs about teaching sexuality.

Please review the enclosed instrument and make suggestions concerning the introduction, the directions, and each question on the instrument itself. In your review, please consider the flow of the instrument, the content, the placement of the questions, and the wording of the questions. Please make comments directly on the instrument. Please return the reviewed survey in the post-marked return envelop provided by February 9, 2001.

Thank you for your assistance. Please contact me if you have any questions or concerns.

Sincerely,

Elissa M. Howard
Ph.D. Candidate

APPENDIX E
FIRST COVER LETTER

(On University of Florida, Department of Health Science Education letterhead paper.)

February XX, 2001

Dear Colleague,

I am writing to ask for your help with a study for Florida special education. This study is part of an effort to learn about special education teachers' beliefs and practices in the teaching of sexuality education to students identified as "educable mentally handicapped." By participating, you will be making a valuable contribution to assessing educational needs of special education teachers and their students.

The Florida Department of Education has identified you as a special education teacher certified to teach educable mentally handicapped students. You are being asked to complete the enclosed questionnaire about your beliefs and educational practices.

Results from this survey will be used to identify Florida special education teachers' current beliefs and practices in teaching sexuality education to students classified as educable mentally handicapped. Virtually no reliable information on this topic exists. Only by asking teachers throughout the state can we learn what they believe regarding sexuality education for their students.

Be assured that your answers are completely confidential. The data will be released only in summary form in which no individual's answers can be identified. The questionnaire has an identification number for mailing purposes only. This is so I may check your name off the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire itself, and there are no risks for participating.

Your participation is completely voluntary, and you do not have to answer any question you do not wish to answer. You will help this effort very much by taking the approximately 15 minutes it takes to complete this questionnaire. A copy of the results will be offered to you as a compensation for your time.

I would be happy to answer any questions you may have about this study. Please e-mail me at ehoward@ufl.edu or call me at (352) 392-0583, ext. 1285. If you wish, you may also contact my supervisor, Dr. Barbara Rienzo, by e-mail at brienzo@hhp.ufl.edu, or by phone at (352) 392-0583, ext. 1289. If you have any questions regarding your rights as a participant, please contact the University of Florida IRB at (352) 392-0433.

Thank you very much for helping with this important study.

Sincerely,

Elissa Howard, M.S.
Project Director

APPENDIX F
POSTCARD FOLLOW-UP

(In postcard format – 5 ½ X 4 ¼ inch cardstock.)
Side 1.

March X, 2001

Last week a questionnaire seeking your beliefs about sexuality education for exceptional students was mailed to you. Your name was obtained from a list of special education teachers provided by the Florida Department of Education.

If you have already completed and returned the instrument to me, please accept my sincere thanks. If not, please do so today. I am especially grateful for your help. It is extremely important that your response be included in the study so the results accurately represent the beliefs of Florida special education teachers.

If you did not receive the questionnaire, or if it was misplaced, please notify me by email at ehoward@ufl.edu or call me collect at (352) 335-9890 and I will get you another one in the mail to you today.

Sincerely,

Elissa Howard, M.S.
Project Director

Side 2.

Elissa Howard, M.S.
Department of Health Science Education
FLG – 5, PO Box 118210
University of Florida
Gainesville, FL 32611-8210

(Respondent's Address.)

APPENDIX G
SECOND FOLLOW-UP LETTER

(On University of Florida, Department of Health Science Education letterhead paper.)

Month XX, 2001

Dear Colleague,

About three weeks ago I sent you a questionnaire concerning your beliefs about teaching sexuality education to educable mentally handicapped students. To the best of my knowledge, it has not yet been returned.

I realize you may not have had time to compete it. However for results of the study to be truly representative of special education teachers in Florida, I need your completed questionnaire.

In the event that your questionnaire has been misplaced, I have enclosed a replacement. I would be happy to answer any questions you have about the study. If I can assist you in any way, please send me an email message at ehoward@ufl.edu or call me collect at (352) 335-9890. I would greatly appreciate your assistance.

Sincerely,

Elissa Howard, M.S.
Ph.D. Candidate

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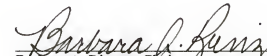
BIOGRAPHICAL SKETCH

Elissa Howard began her undergraduate degree at Eastern Illinois University in the fall of 1992. She received a Bachelor of Science degree in health studies in December 1995. In the spring of 1996, she entered the graduate program at Southern Illinois University. She received a Master of Science degree in community health in the summer of 1997. She will be granted a Doctor of Philosophy in health and human performance with an emphasis in health behavior and a minor in research methodology through the College of Health and Human Performance, Department of Health Science Education, in August of 2001. Elissa will start as an assistant professor at Coastal Carolina University in the Department of Health Promotion in August of 2001.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Barbara A. Rienzo, Chair
Professor of Health Science Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Delores C. S. James
Associate Professor of Health Science Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Robert M. Pigg, Jr.
Professor of Health Science Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Anne E. Seraphine
Assistant Professor of Educational Psychology

This dissertation was submitted to the Graduate Faculty of the College of Health and Human Performance and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August 2001

Dean, College of Health and Human Performance

Dean, Graduate School